DOCUMENT RESUME

ED 082 229 CS 200 715

AUTHOR	Ammon, Paul R.
TITLE	The Speech of Young Black Children. Final Report.
INSTITUTION	California Univ., Berkeley.
SPONS AGENCY	National Center for Educational Research and Development (DHEW/OE), Washington, D.C.
BUREAU NO	BR-1-0038
PUB DATE	Dec 72
CONTRACT	OEC-9-71-0030(508)
NOTE	200p.
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	Caucasian Students; *Language Ability; *Language Research; *Linguistic Performance; Lower Class; Middle Class; Negro Youth; Preschool Children; Reading Achievement; *Speech Skills; *Syntax
IDENTIFIERS	Elaborated Code; Restricted Code

ABSTRACT

This report concerns a detailed analysis of syntax in speech samples collected from 69 lower-class black preschool children and 30 middle-class white preschool children. The objectives of the study were (1) to investigate the hypothesis that lower-class black children are deficient in their ability or propensity to produce syntactically elaborated speech; (2) to test the effects of training lower-class black children in sentence counstruction and vocabulary; (3) to determine the validity of a sentence imitation test for assessing individual differences in language ability; and (4) to determine the predictability of early reading achievement from preschool speech production and sentence imitation. Instruments used to collect data included a picture interview, a sentence imitation test, the Peabody Picture Vocabulary Test, and the Cooperative Primary Reading Test. Measures of syntactic elaboration showed few significant differences between the black and white samples, with no general tendency toward more elaborated speech on the part of the white children. Within the black sample, there was no evidence that special training in sentence construction or in vocabulary had significant effects on the amount of elaborated speech in a posttest interview. (HOD)

FILMED FROM BEST AVAILABLE COPY

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED 082229

Final Report

Project No. 10038

Contract No. OEC-9-71-0030(508)

THE SPEECH OF YOUNG BLACK CHILDREN

Paul R. Ammon

University of California, Berkeley

December 1972

The research reported herein was performed pursuant to a contract with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
National Center for Educational Research and Development

CS 200 715

PREFACE

The study reported in this document has resulted from the efforts of a very large number of people. The work actually began four years ago, when the first speech samples were collected at three schools in Richmond, California, and at Mrs. Nielsen's Nursery School in Moraga, California. The research could not have gotten underway without the cooperation of several individuals associated with these schools. Also involved in the initial phases of data collection were a number of students and staff members at the University of California, Berkeley. Since I have expressed by gratitude to them elsewhere, I will only thank them again as a group here, without listing their names.

The part of the research encompassed by the present project was especially demanding, as it required the painstaking application of a very complex coding system to an equally complex body of speech data. Mary Sue Ammon and Judy Harker worked extremely hard at developing and refining the coding system, teaching others to use it, monitoring the reliability of coding, and generally keeping the project on course. The actual coding was carried out by Lauren Bernstein Adamson, Carol Bell, Clifford Carter, Vicky Johnson, and Yvonne Smith. Each of the coders also had a hand in later processing of the coded data. Grover Matthewson contributed skills which ranged from typing to computer programming. I am indebted to all of these people for their help.

I would also like to thank Lorna Maples for her patience and expertise in attending to the many administrative details connected with our project. Anne Burich and Barbara Nakakihara did a fine job of typing the final report.

Paul R. Ammon

December 1972

TABLE OF CONTENTS

	Page
List of Tables	iii
List of Appendices	v
Introduction	1
Method	11
Results and Discussion	23
Conclusions	65
References	67
Appendices	A-1

LIST OF TABLES

Table		Page
1.	List of Items from the Sentence Imitation Test.	13
2.	Assignment of Subjects in Each Treatment Group to Experimenters A, B, and C.	16
3.	Mean Proportion of Errors in Coding Major Features of Verb-Complement Units and Noun Phrases.	21
4.	Mean Frequency of VC Expansion-Deletion Codes.	25
5.	Mean Frequency of VC Grammatical Functions.	27
6.	Mean Frequency of Specific Things Modified by VC Units.	28
7.	Mean Frequency of Function of Larger Unit Containing VC.	30
8.	Mean Frequency of NP Types.	32
9.	Mean Frequency of Prepositional NP Functions	33
10.	Mean Frequency of Adverbial NP Functions.	35
11.	Mean Frequency with which Pre-Head NP Slots were Filled.	36
12.	Mean Frequency with which Post-Head NP Slots were Filled.	38
13.	Mean Frequency of VC and NP by Part of Interview.	40
14.	Mean Frequency of VC Environment Codes.	42
15.	Intercorrelations of Selected VC Environment Frequencies.	43
16.	Mean Frequency of VC Patterns.	45
17.	Mean Frequency of Complement Constituent Introducers.	48
18.	Mean Frequency of Dependent Adverbial Clause Introducers.	50

19.	Mean Frequency of Head Noun Types.	51
20.	Mean Frequency of Constituent NP Functions.	53
21.	Mean Frequency of Types of Deletions in VC Units.	54
22.	Mean Percentages on Selected Elaboration Variables.	58
23.	Training Group Means on Selected Dependent Variables from the Posttest.	62

LIST OF APPENDICES

A. Excerpt from a Picture Interview Transcript

B. Instructions for Transcribing from Tapes

C. Picture Interview Coding Manual

INTRODUCTION

This report concerns a detailed analysis of syntax in speech samples collected from a large group of lower-class black preschool children and a smaller group of middle-class white children.[1] The analysis was intended to meet four major objectives: (1) to investigate the hypothesis that lower-class black children are deficient in their ability or propensity to produce syntactically elaborated speech; (2) to test the effects of training lower-class black children in sentence construction and in vocabulary; (3) to determine the validity of a sentence imitation test for assessing individual differences in language ability; and (4) to determine the predictability of early reading achievement from preschool speech production and sentence imitation. The background and significance of each objective will be discussed in the sections which follow.

Syntactic Elaboration and Lower-Class Black Children

A great many programs of compensatory education for young black children of low socioeconomic status have proceeded from the assumption that a language deficit impedes the progress of these children in school. The alleged deficit has often been characterized in terms of Bernstein's distinction between "elaborated" and "restricted" codes or styles of speaking. That is, the lower-class black child is said to be deficient with respect to use of an elaborated style. The first objective of the present study is to examine new evidence bearing on the assumption that such a deficit exists.

According to Bernstein, the elaborated and restricted codes differ in several ways, ranging from formal linguistic features of phonology and syntax to social and psychological dimensions such as "egocentric versus sociocentric orientation" (Bernstein, 1964; 1970). The contrast emphasized by Bernstein himself, and by most other investigators, lies in the area of syntax. The restricted code is said to be relatively predictable or stereotyped with regard to syntax; sentences are short, grammatically simple, and often incomplete. On the other hand, the elaborated code entails relatively unpredictable syntax due to the flexible use of modifiers, subordinate clauses, and the like, all of which increase the length and complexity of sentences. Neither of the codes is inherently better than the other; their relative effectiveness depends upon the situation in which they are used. The elaborated code, with its greater syntactic complexity, tends to make the speaker's meaning more explicit. Elaboration,

---

[1] These data were originally collected as part of a project supported by the U.S. Office of Economic Opportunity, Contract No. B99-4776.

therefore, is deemed to be especially useful in situations where the listener does not already know a great deal about the topic of conversation, as is often the case in an educational setting. For this reason, Bernstein has suggested that the language of formal education is essentially the elaborated code (Bernstein, 1970).

From his studies in Britain, Bernstein has concluded that members of the lower working class tend to use only a restricted code, while people from higher social strata can employ either the restricted or the more elaborated code, depending on the situation. This status difference in styles of speaking is supposed to arise from social structure itself, in ways which need not be discussed here. The important point is that, according to the theory, the educability of many lower-class individuals is limited by their inability to use an elaborated code, not by their innate potential.

This part of Bernstein's theory, along with his early research, has often led to a chain of reasoning about the language of lower-class black children which may be summarized briefly as follows. British adolescents and adults of low socioeconomic status are generally limited to the use of a restricted code. The social conditions alleged to cause this limitation exist in the lower strata of American society too. Therefore American adolescents and adults of lower-class are also limited to the use of a restricted code, including a large proportion of black people. Since young children acquire their ways of speaking from the older people around them, many young black children come to school with only a restricted code and, as a result, they fail in school. In order to prevent such failure, it is necessary to intervene before the child gets to school by providing experiences which will foster the development of an elaborated code (e.g. Osborn, 1969).

There are bits and pieces of evidence to support various links in this chain, but they add up to a very slender thread indeed, as noted by Labov (1969). A major limitation of the research to date is the almost total lack of systematic comparisons between lower-class black and middle-class white children at an early age. Social class comparisons within race, or the factorial crossing of social class and race, have been more common (e.g. Hess & Shipman, 1965; Williams & Naremore, 1969). These approaches seem desirable on methodological grounds, because they separate the factors of race and social class. But this methodological advantage may be more apparent than real, due to problems of interpretation. If the goal is to explain academic failure among lower-class black children, a comparison with the relatively successful middle-class white population does not seem inappropriate. The alternative of making a comparison with middle-class <u>black</u> children is risky because the latter group is rather rare, both in quantity and in quality (see Williams & Naremore, 1969b, for discussion of this problem). Needless to say, there is at least as much risk in generalizing to black children from social class comparisons within the white population. The <u>age</u> of the subjects is a relevant

consideration in any comparison involving lower-class black children because their language deficit is reputed to exist at the very outset of schooling. That is why preschool remediation is supposed to be necessary in order to prevent school failure. If data from older children are cited as evidence for this assumption, it is not clear whether the apparent deficit is a cause or an effect of failure. Yet much of the thinking about early compensatory education generalizes from evidence regarding older children. The present study makes a direct comparison between lower-class black children and middle-class white children at the preschool level.

A second limitation of previous research has to do with the measurement of syntactic elaboration. The measurement problem is especially acute in the present study because it involves a comparison of groups that speak different dialects of English. The importance of this issue has led Bernstein (1970) to point out that there is no inherent connection between a speaker's dialect and his use of the elaborated code. Most researchers have recognized that one cannot simply count dialect deviations from Standard English as evidence of a deficiency in elaboration. There is no reason to believe that the linguistic system which generates such deviations is inferior and is therefore a deficit--except as a social liability when black people are dealing with the white establishment. Unfortunately, however, it sometimes is difficult to untangle dialect phenomena from elaboration per se. Previous measures of elaboration present a number of problems in this regard, as a close examination of them will show.

A common measure in language behavior research is mean sentence length. There is a certain logic in using sentence length to measure elaboration. The number of words in a sentence does increase with the addition of elaborative words, phrases, or clauses--other things being equal. The problem is that other things are not equal when speakers of different dialects are being compared. To take an obvious example, copular forms of be are often realized as a zero morpheme in Black English, as in she my best friend. Such "omissions" do not reduce syntactic complexity, but they do reduce the mean number of words per sentence in the speech of a lower-class black child.

In at least one study (Loban, 1963), the deletion of copular verbs in Black English seems to have affected another syntactic measure associated with Bernstein's "restricted" code--the frequency of "incomplete" or "partial" sentences. The sentence she my best friend contains no verb (at least on the surface) and it might therefore be scored as incomplete. By this criterion, a lower-class child speaking Black English would appear to have more incomplete sentences than his middle-class counterpart--other things being equal. In reality, however, a sentence with the copula deleted is no less complete than a sentence with the copula contracted, as in she's my best friend.

There is a need, then for measures of elaboration that are more direct and less crude than sentence length or completeness. A count of elaborative elements themselves seems quite direct. The traditional favorite here is the number of subordinate or dependent clauses. A higher frequency of subordinate clauses would indicate a more elaborative type of speech. But again the researcher may run into snags involving dialect differences. In the present study, a preschool child said there's a girl live in a house with a cherry tree. This sentence appears to contain a relative clause, even though it lacks the relative pronoun generally present in Standard English. Thus one must at least be sensitive to the ways in which subordinate clauses are formed in non-standard dialects.

But the counting of subordinate clauses raises an even more fundamental question. What is so special about the clause as an elaborative element? What about infinitive and participial phrases, for instance? Even when researchers have tried to incorporate these other constructions in their measures of subordination, they still have given more weight to clauses (Loban, 1967). While this is not, strictly speaking, a dialect problem, there may be stylistic differences closely related to dialect, such that one group of speakers prefers to elaborate more often with clauses. But is it really less restricted to talk about the boy who is climbing the tree, as opposed to the boy climbing the tree? The second construction not only lacks a dependent clause but also has fewer words in it. Instead of counting clauses or words, why not simply count different types of elaboration and report any differences in frequency between groups of subjects? This can be done without assigning arbitrary weights to various constructions, on the assumption that some are better than others.

It is important to avoid a confusion between the syntactic and lexical aspects of elaboration. Some researchers have counted the number of uncommon adjectives and adverbs as an index of elaboration (e.g., Hess & Shipman, 1965), but this seems to reflect the richness of the speaker's vocabulary, rather than the use of modification per se. On the other hand, it is also important to examine the lexical content of sentences which are being scored for syntactic elaboration. Sometimes the lexical content has structural implications. The verb put, for example, requires not only a direct object but also a locative word or phrase. That is, one always talks about putting something somewhere. In other places, a locative phrase might be considered an instance of elaboration, but with put it is just a necessary part of the sentence.

It is conceivable that certain groups of subjects, speaking on certain topics, will differ with regard to the frequency of certain lexical contents. There is a very blatant example which seems nonetheless to have been overlooked. It is the response I don't know, which occurs with some regularity in children's interviews, perhaps more often with lower-class children. If I don't know is treated as just another sentence, one finds that it contains very few words, no

dependent clauses, and no modifiers--uncommon or otherwise. But the occurrence of I don't know probably tells more about a child's readiness to answer questions than about his ability or inclination to produce elaborated speech.

An analysis of syntactic elaboration must consider not only the content of a sentence, but also its context. Only one aspect of context will be mentioned here, but it is potentially a very important one. In an interview, the immediate context for many of a child's sentences is a direct question or some other request for information. Other sentences expand upon these immediate responses to questions, or they introduce information which has not been requested by the interviewer. There is some evidence that middle-class children tend to produce more of these expansions and spontaneous remarks (Williams & Naremore, 1969a). In other words, immediate answers to questions probably account for a greater proportion of the sentences produced by lower-class children. This may have more to do with the social psychology of interviews than with a child's language ability.

The point is that direct responses to questions and more spontaneous remarks ought to be analyzed separately in a study of syntactic elaboration, because there may be systematic structural differences between sentences produced in these two contexts. For one thing, the immediate answer to a question tends to be short--often elliptical--because some information has already been made explicit in the question. Furthermore, to the extent that the questions are about the person being interviewed, his immediate answers are likely to be permeated by the personal pronouns I and me, which do not lend themselves to modification by adjectives or adjective phrases. On both of these counts, then, the sentences of a lower-class child would come out looking less elaborated, so long as the researcher ignored the contexts in which they occurred.

The main thrust of the preceding discussion is that measures of syntactic elaboration which have been used in the past are too vulnerable to the influence of other social-class and ethnic differences in language behavior--differences which have little if anything to do with the ability to produce elaborated speech. Although it is far from clear that previous evidence of an elaboration deficit in lower-class children is artifactual, there is nonetheless much room for doubt that such a deficit exists. To reduce this sort of doubt to a minimum in the present study, a very detailed coding system was devised for the description of syntax in the speech samples to be analyzed. The raw speech data were collected by means of a semi-structured Picture Interview similar to the one used by Loban (1963). The coding system was suggested by the outline of a similar scheme from Shuy, Wolfram, and Riley (1967). To make the general approach of Shuy et al. operational, a great deal of work was done on the system before and during the present study.

Briefly, the Picture Interview coding system identifies two units of analysis--the verb-complement unit and the noun phrase--and describes each unit in terms of its internal structure, its grammatical function, and its context in the interview. With the raw data coded in this manner, it becomes possible to investigate more adequately than before the assumption that lower-class black children begin school with a less elaborated speaking style than their middle-class white peers. It also becomes possible to pinpoint more precisely any such deficit which the data might indicate. A specific diagnosis of this sort would enhance the effectiveness of early training programs intended to facilitate language development.

Effects of Training in Sentence Construction and Vocabulary

The Picture Interview speech data for the present research were collected as part of an earlier study in which subgroups of lower-class black children received training in the construction of sentences or in vocabulary, or else received no experimental training at all. Some results from this training experiment have already been reported (Ammon & Ammon, 1971). It was found that vocabulary training produced significant gains in the recognition and production of those items which were taught. On the other hand, training in sentence construction--with the emphasis on use of elaborative elements such as adjectives, prepositional phrases, and dependent clauses--had no discernible effect on the children's control of elaborated constructions, as measured by specially devised Sentence Imitation Test. The syntactic analysis of the Picture Interview speech samples in the present research provides an opportunity to investigate further the results of this training experiment.

Since the background and rationale for the training study have been set forth elsewhere (Ammon & Ammon, 1971), they will not be discussed in any detail here. It suffices to say that the experiment was intended to be more analytic than previous training studies (e.g. Cazden, 1965; Dickie, 1968) by separating the effects of training in vocabulary and sentence construction. The object was to see whether or not training in one of these areas was easier and/or had greater transfer to other aspects of language behavior. Thus the present analysis of syntax can be used to answer a number of specific questions: Does the Picture Interview reveal any effects of sentence training which were not detected by the Sentence Imitation Test? If not, do the interview data contain any clues as to why sentence training was ineffective? Did vocabulary training affect the syntactic properties of speech in the Picture Interview? To answer these questions, the interview data were analyzed for differences between sentence, vocabulary, and control groups. In addition, the interview performance of all groups before training was compared to the content of sentence training.

The Validity of Sentence Imitation as a Language Assessment Tool

Because the Picture Interview and the Sentence Imitation Test were administered to each child participating in the training study, it was possible to explore the relationship between imitation performance on the one hand and interview speech on the other. This analysis was motivated by more than the availability of the data; sentence imitation seems quite promising as a language assessment tool, for the theoretical and practical reasons discussed below. It remains to be seen, however, what relationships exist between imitation and other types of language behavior. In other words, the empirical validity of the sentence imitation task has yet to be determined. The present study investigates the validity of sentence imitation as a way of measuring a child's facility in producing syntactically elaborated speech.

Sentence imitation might be expected to lend itself especially well to the assessment of syntactic skills. Syntax is an area of language which has generally been neglected by test makers; tests of vocabulary, or of auditory discrimination have been the primary measures of individual differences in language ability. Conversely, recent basic research in developmental psycholinguistics has been concerned almost exclusively with syntax--which at least underscores the fact that language acquisition involves more than the ability to distinguish speech sounds or the learning of vocabulary. But with a few exceptions (e.g., Lee, 1969), this theoretical interest in syntactic development has not yet been reflected in the way language ability is assessed for more applied purposes.

In connection with basic research on syntactic development, some progress has been made in devising techniques for assessing the young child's control of syntax in his native language (for a relatively comprehensive discussion of methods, see Slobin, 1967). This work has emphasized the assessment of language "competence"--the child's implicit knowledge of linguistic rules. The assessment of competence (in this technical sense) is seen as something of a methodological problem because of the possibility that a child's competence will either be over- or under-estimated by his "performance"--his actual behavior in producing speech or in responding to it. Under certain conditions, for instance, limitations in a child's memory capacity or in his perceptual and motor skills may prevent the child from manifesting the competence which he has. In developing a theory of language acquisition, it is important to distinguish such cases from ones in which a child simply has not yet learned a particular rule in his language. The common belief that young children can understand much more of language than they can produce has led to an emphasis on carefully contrived comprehension tasks as tests of linguistic competence, although production tasks have been found quite useful too.

The status of sentence imitation in relation to the distinction between competence and performance is not clear. There is good evidence that sentences are not simply treated as word lists or sound sequences in the imitation task, even by very young children (Slobin & Welsh, 1968). The types of errors which occur in imitation suggest very strongly that the child's linguistic competence enters into his processing of a model sentence. On the other hand, it is obvious that the imitation task involves both comprehension and production of speech, and therefore, is influenced by a variety of performance factors. A few studies have investigated the empirical relationship between imitation and comprehension or production, but it is difficult to draw any firm conclusions from this research (e.g. Fraser, Bellugi, and Brown, 1963; Osser, Wang, and Zaid, 1969). Thus the imitation task is analytically less "pure" than the methods which attempt to separate competence from performance, or to isolate comprehension and production. But this very complexity may turn out to be an advantage in using sentence imitation for assessment purposes in an applied setting. From a practical standpoint, a child's ability to coordinate linguistic competence and performance factors may be at least as important as any of these components taken separately.

Aside from this theoretical analysis, the sentence imitation task also recommends itself as an assessment tool because of its convenience. A large number of model sentences can be presented for imitation in a short period of time. Virtually all young children, at least down to age four, can understand the instruction to imitate. Many children seem to enjoy performing the task. The tester can, of course, systematically manipulate the model sentences in accord with those aspects of language ability which are of particular interest to him. The scoring of imitation responses can become rather complicated, but it does not seem unreasonable to expect that some relatively simple scoring methods will provide valid measures of language ability. Certainly the sentence imitation task would be more convenient than the collection and analysis of free speech samples. Some authors have suggested that samples of free speech ought to be included in a language assessment battery (e.g., Rosenberg, 1968), but these authors must not have considered the limitations on an assessment instrument if it is to be used by practitioners in the field.

Any attempt to establish the construct validity of a particular assessment instrument eventually involves the comparison of that instrument with others which, theoretically, measure different kinds of ability or skill. In the present research, a third instrument--the Peabody Picture Vocabulary Test--was administered to all subjects, along with the Sentence Imitation Test and the Picture Interview. On the face of it, the Peabody measures a child's recognition vocabulary, but the test is also referred to as a measure of "verbal intelligence" or "language ability." In any case, it seems unlikely

that the Peabody would predict the syntactic elaborateness of Picture Interview speech as well as a sentence imitation task devised specifically to measure control of elaborated syntax. The present analysis puts this expectation to a test by comparing the Sentence Imitation Test and the Peabody as predictors of Picture Interview performance. The fact that the two predictors correlate only moderately with each other (.47--Ammon, 1971) suggests that a substantial difference in their predictive power is quite possible.

Predicting Early Reading Achievement from Preschool Language Data

A child's proficiency in the use of oral language is likely to be an important determinant of his success in learning to read. As obvious as this assertion might seem, there is still much to be learned about the specific relationships between various aspects of language development and reading. Phonology, syntax, the lexicon, and language function are all areas worthy of further exploration (Ruddell, 1970). The language data collected for the present study can be used to investigate the language-reading relationship in the area of syntax, particularly with regard to syntactic elaboration. Although other researchers have suggested that elaborative proficiency is relevant to reading skill (e.g. Ruddell, 1970), the mechanism of transfer from one to the other is not clear. It seems idle to speculate in detail about the theoretical relationships between spoken elaboration and reading when there is an opportunity to look for empirical relationships in existing data. This kind of analysis has been made possible by the availability of second-grade reading achievement scores for a subset of the lower-class black children who participated in the preschool training experiment.

The syntactic analysis of the Picture Interview data is relevant to reading in another way which should at least be mentioned here, although it will not be explored any further in the present report. There has been considerable interest recently in designing early reading materials which are attuned specifically to the oral language of black children (Baratz and Shuy, 1969; Legum, Williams, and Lee, 1969). It is generally agreed that these special materials should be written in standard orthography with conventional spelling but that they should reflect the "nonstandard" syntax, lexicon, and stylistic features of the black child. To construct such materials effectively, it would be necessary to know quite a lot about the ways in which black children speak. An author might feel that his subjective impressions of child speech would provide sufficient background to write for children, but even a cursory look at traditional reading materials indicates that they generally have not borne much resemblance to the way children talk (Shuy, 1969). Formal

linguistic analysis of Black English is not sufficient either, because it does not investigate relative frequencies of usage in children's speech. Hence there is a need for good objective data on the performance patterns in black children's speech. The present syntactic analysis constitutes a source of such data.

METHOD

Subjects

A total of 99 children provided the data analyzed in this report. The lower-class black sample consisted of 69 children, 30 boys and 39 girls, who were drawn from seven pre-kindergarten classes at three elementary schools in Richmond, California. At the time of the study, nearly all of the children attending these schools were black, and most of them came from lower-class homes, as indicated by census tract data for the area. The total enrollment in the seven classes was approximately 95. Some of these children were eliminated from the study because they were not black, because they were observed to have severe speech impediments, or because they did not attend school regularly. The final sample was determined by the feasibility of scheduling training sessions which met the design requirements of the training experiment. Where more than one child was available for a given position, random selections were made. The selected subjects had a mean age of 4 years and 6 months.

The middle-class white sample consisted of 30 children, 15 boys and 15 girls, who were drawn from three classes at a private nursery school in Moraga, California. All were native speakers of English and were from middle- or upper-middle-class homes. When the study began, these subjects had a mean age of 4 years and 7 months.

A wealth of evidence indicates that two samples of children with the above demographic characteristics may be expected to differ considerably on conventional measures of "intelligence." This expectation is supported by test data reported below. It appears, then, that the present samples are representative of two populations which should also differ with regard to syntactic elaboration, if the elaboration deficit hypothesis is tenable.

Data Collection Instruments

Four instruments were used to collect data for the present study. Each is described briefly below. The appendixes of this report and other appropriate sources may be consulted for additional detail.

Picture Interview. The Picture Interview consisted of two parts: a "warm-up" portion and a picture portion. In the warm-up, the child was questioned briefly on a series of standard topics, as follows:

> Can you tell me your whole name?
> How old are you?
> Do you have any brothers or sisters?
> What have you been doing in school today?

What's your favorite thing to do?
What do you like to watch on TV?
Can you tell me about one time when you were sick?
Do you have a dog or any kind of pet at your house?

Additional probes and follow-up questions on these topics depended, of course, on the child's responses. The general objective was to engage the child in relaxed conversation and to encourage speech on his part. As the name "warm-up" implies, this portion of the interview was intended primarily to establish rapport. But some children produced proportionately large amounts of speech during the warm-up, so it is regarded as being no less important than the picture part, which follows.

In the second portion of the Picture Interview, the child was shown a series of six pictures, one at a time. Each picture was introduced with an open-ended instruction such as "Tell me everything you can about this picture." Appropriate probes and follow-up quesions were, again, based on the child's initial responses. The six pictures were collected from assorted magazines, calendars, and other sources, and had been pretested for their conversational value with young children.

Sentence Imitation Test. A list of 50 sentences was constructed for use in the Sentence Imitation Test. The number 50 was chosen arbitrarily as the near maximum number which might be administered to four-year-old children in a single session. The complete list of sentences appears in Table 1.

Insert Table 1 about here

The primary goal of the list is to assess a child's ability to deal with some elementary forms of sentence complexity. It was decided to focus particularly on complex noun phrases--especially cases in which the noun head is modified by some additional predication. The ability to use these forms of complexity in comprehension and production seems related to Bernstein's notion of an elaborated linguistic code. That is, the introduction of complexity elaborates on, or makes explicit, what the speaker is talking about. As a result of this focus on syntactic elaboration, many of the present sentences are somewhat longer than those which other investigators have used to elicit imitations from young children. Greater sentence length is quite consistent with the goal of assessing the child's control of syntax, however, since this control seems to reveal itself most readily in imitation when there is some strain on immediate memory. (See Ammon, 1971, for details regarding construction of sentences.)

Table 1

List of Items from the Sentence Imitation Test

1. The boy is eating his lunch.
2. The lady showed the people in the store some books.
3. The girl's father cut himself.
4. The teacher knows that the boys are sick.
5. The milk was in the cup that broke.
6. The teacher is wearing a green dress.
7. The doctor was called by an old man.
8. The boy's kitten is eating.
9. The picture in the book was funny.
10. The dog that caught the cat is drinking some water.
11. The children played a game until the teacher called them.
12. The clown the people watched was feeding a rabbit.
13. The toy is a doll that walks.
14. The girl who fell was crying.
15. The new teachers are pretty.
16. A man saw the car by the house.
17. The doctor is holding the kitten while the mother feeds it.
18. A book is under the teacher's chair.
19. The boy is the girl's brother.
20. The doctor brought the nice baby a toy.
21. The cat that ate was washing itself.
22. The children like their teacher.
23. The horses eat the apples that the boy brings.
24. The dinner was cooked by the lady in the kitchen.
25. The boys made some boats after they heard a story.
26. The girls found a book the teacher wanted.
27. The little birds are feeding themselves.
28. The mother made the girl who laughed some cookies.
29. The children told the teacher that some birds were singing.
30. The dolls are on a chair by the door.
31. The man who the children saw was drawing a picture.
32. The girl found her toys.
33. The clown's hat is red.
34. The happy children were playing.
35. The lady was a teacher at the school.
36. The rabbits were caught by the man's friend.
37. The lady likes the girl who is watching the baby.
38. The people are taking the apples that fell.
39. A clown is a funny man.
40. The girl who opened the door sees an airplane.
41. The shoes were in a brown box.
42. The lady in the house sings to herself.
43. The children who ran were hot.
44. The bird is building its nest.
45. The girl hit the boy when he took the candy.
46. The horses under the tree are sleeping.
47. The teacher called the man because she broke the chair.
48. A cow ate the lady's flowers.
49. A man gave the girl's dog some bread.
50. The windows were broken by the boy who ran.

The sentences listed in Table 1 were presented orally to individual subjects. At the outset, the experimenter gave each subject the following instructions: "This is a remembering game. I am going to say something, and when I finish, you try to say just what I said. Let's try one." These instructions, and the first two items, were repeated as often as needed to insure that the child understood the task. (Little or no repetition was required in most cases.) Sentences 3 through 50 were repeated only once and only if the subject requested a repetition, gave no response, or appeared not to have heard the sentence. If the subject gave a minimal response (one or two words), the experimenter encouraged him to improve upon it (e.g., "can you remember the rest of it?"), but did not repeat the model sentence. The repetitions served primarily to check on the reliability of the initial response and were not considered further in scoring. Each model sentence was printed on a separate card and was pronounced clearly by the experimenter, with a normal speaking rate and intonation pattern. Although a tape recorded presentation would have permitted more uniformity of administration from one subject to the next, a "live" presentation seemed preferable in order to achieve maximum flexibility in the pacing of items, in the use of repetitions, and in the maintenance of the subject's attention. It seemed, too, that the visibly diminishing stack of sentence cards sometimes helped to sustain the subject's engagement in the task.

Peabody Picture Vocabulary Test (Form B). The Peabody is a widely used test of recognition vocabulary. On each item, the experimenter pronounces a test word and the child is then required to point to one of four pictures in the test book. (See Dunn, 1965).

Cooperative Primary Reading Test (Form 23A). The 50 items in this instrument test the comprehension of printed words, sentences, and paragraphs. Each item requires the child to mark one of three verbal or pictorial alternatives in the test booklet. (See Educational Testing Service, 1967.)

Data Collection Procedures

All children in the present study received the Peabody Picture Vocabulary Test, the Sentence Imitation Test, and the Picture Interview--in that order--during the late fall and early winter of 1968-69. Each child was tested individually by one of three white, female experimenters who had no connection with the regular school programs. The children within each racial group or training group were equally divided among the three experimenters. Each instrument was administered on a different occasion, with the successive testings separated by at least one day. All testing was done at the schools which the children were attending, but in areas away from the regular classrooms. The same procedure was repeated with the lower-class black children during the spring of 1969, as the posttest of the training experiment (see below).

The Cooperative Reading Test was administered by regular classroom teachers to the lower-class black children when they were near the end of second grade, in the spring of 1972. Because the administration of this test was not observed by the present investigators, the extent of variation in testing procedure from one teacher to another is unknown.

Design of the Training Experiment

Since the training experiment has been described elsewhere (Ammon & Ammon, 1971), its design will only be summarized here. After the initial administration of the first three instruments mentioned above, the lower-class black sample was divided into three groups--sentence training, vocabulary training, and control (no training). The training phase of the experiment then lasted six weeks, with each child in the sentence and vocabulary groups participating in two training sessions per week. The training phase was followed by the posttest administration of the same three instruments as before. Subjects were assigned to training groups in such a way as to balance the effects of trainer, tester, and regular classroom teacher. The assignment of subjects to testers and trainers is indicated in Table 2.

Insert Table 2 about here

Treatment of Data

The Peabody Picture Vocabulary Test was scored by the present investigators in accordance with procedures set forth in the test manual (Dunn, 1965). The exact procedures used in scoring the Cooperative Reading Test are unknown; however, it can probably be assumed that the scoring at least approximated the procedures recommended in the Cooperative tests handbook (Educational Testing Service, 1967). In any case, the treatment of vocabulary and reading test data requires no further discussion here. On the other hand, the Picture Interview and the Sentence Imitation Test are not standardized instruments and must, therefore, be discussed at some length with respect to treatment of the raw data which they produced.

Coding of the Picture Interview

The entire Picture Interview session with each subject was tape-recorded and later transcribed. Because a certain amount of information is bound to be lost between tape and transcript, any investigator

Table 2

Assignment of Subjects in each Treatment Group

to Experimenters A, B, and C

Phase of study	Treatment Group								
	Vocabulary			Sentence			Control		
Pretest	A	B	C	A	B	C	A	B	C
Training	B or C	A or C	A or B	B or C	A or C	A or B	--	--	--
Posttest	A	B	C	A	B	C	A	B	C

must decide what sorts of information are crucial in the type of analysis which he anticipates doing. In the present study, the main desideratum was that syntactically and lexically relevant information be preserved in the transcript. Thus all morphemes that were realized in sound in some recognizable form were transcribed in the spelling of Standard American English. Variations in pronunciation were generally ignored. In addition, pauses and other hesitation phenomena were noted to some extent. An accurate record of the interviewer's speech, as well as the child's, was deemed as essential for later interpretation of the child's speech. In an effort to guarantee accuracy of transcription so far as possible, each tape was heard by at least two transcribers. More difficult passages (and there were many) were heard by three or four people, who conferred as to the most likely interpretation of what was being said. (See Appendix A for an excerpt from a completed transcript. Explicit rules for transcribing both the Picture Interview and the Sentence Imitation Test are outlined in Appendix B.)

As noted earlier, each interview transcript was coded with respect to several features of the noun phrase and verb-complement units which the child produced. The complete manual for this coding is presented in Appendix C. Briefly, verb-complement units were coded with respect to the following features:

Pattern--e.g. intransitive verb; transitive verb + direct object; copular verb + noun complement of subject; etc.

Expansion-Deletion--the extent to which the basic pattern contains expanded and/or deleted elements.

Type of Deletion--e.g. obligatory vs. optional deletions due to ellipsis, anaphora, etc. (where applicable).

Grammatical Function of Verb--e.g. main verb; verb in complement constituent; verb in dependent adverbial clause; etc.

Introducer--morpheme(s) introducing verbs which perform various functions other than main verb; e.g. "because," "who," "-ing," etc. (where applicable).

Coordination--ordinal number of unit in a compound construction (where applicable).

Specific Thing Modified--e.g. the unit being coded modifies a whole sentence; modifies a verb; modifies a subject; etc. (where applicable).

Function of Larger Unit--grammatical function of the verb in the unit which contains the unit being coded (where applicable).

Environment--e.g. unit being coded is first clause in response to a question, request, or command; first clause in a new sentence following another spoken by the child; etc.

Part of Interview--unit occurs with warm-up questions; with picture 1; with picture 2; etc.

Stereotyped Response--unit is an often repeated response; e.g. "I don't know" or "Nothing."

Other Information--e.g. unit is a question; imperative; negative; passive; etc.

In a similar fashion, noun phrases were coded with respect to:

Type of Noun Phrase--e.g. simple constituent; object of a preposition; adverbial; etc.

Pre- and Post-Head Slots Filled--e.g. the noun phrase includes an article; attributive adjective; head noun; locative prepositional phrase; etc.

Type of Filler in each Slot--e.g. slot is filled by a single word; simply modified phrase; etc.

Type of Head Noun--e.g. head is a common count noun; mass noun; proper noun; personal pronoun; etc.

Grammatical Function of Noun Phrase--e.g. subject; direct object; modifies sentence; etc.

Environment of Verb-Complement Unit Containing Noun Phrase--see above.

Part of Interview--see above.

Other Information--e.g. noun phrase occurs in stereotyped utterance; is part of a list; etc.

For a complete definition of each feature along with examples of each category under a given feature, see the coding manual in Appendix C.

Due to the complexity of the coding system outlined above, the coding of a given transcript took anywhere from several hours to several days. Since there were 167 transcripts to be coded, it was necessary to employ five coders in order to complete the coding phase of the research within a reasonable period of time. Each of these coders worked closely with the authors of the coding manual in learning how to use it. The work of each coder was checked thoroughly

until he or she seemed to be coding with a high degree of accuracy. At a later time, a systematic reliability check was run on all coders as described below.

Despite the extended period of training and other efforts to ensure coding reliability, it seemed quite likely that there would be constant differences between coders in their use of the manual. Consequently the middle-class white subjects and lower-class black subjects were divided evenly among the five coders. Within the black sample, subjects in the sentence training, vocabulary training, and control groups were also divided evenly among coders. In addition, the individual transcripts were coded in a predetermined order so that the data for the various groups would not be differentially affected by changes in coder behavior over time. The pre- and post-test transcripts for a given subject in the training study were handled by the same coder, and the order in which they were coded varied at random within groups. This ideal scheme for balancing coder differences was compromised in several instances; for example, the more efficient coders assisted others in completing work on their assigned transcripts, in the interest of saving time. However, it is most unlikely that these deviations introduced much systematic bias into the data vis à vis the present research objectives.

The coding of Picture Interview transcripts followed a standard overall procedure. All verb-complement units were coded before work began on noun phrases, because the latter presupposed information from the former. The verb-complement units in each transcript were identified and coded in their order of occurrence during the interview. Each unit was identified by number on the transcript and on a separate coding sheet which also contained all the specific codes assigned to that unit. While performing this task, the coder listened to the entire tape recording of the interview being coded. This replaying of the tape served as a check on the accuracy of the original transcription. In addition, many coding decisions required information of a sort which was not present in the transcript. For example, the tape sometimes contained prosodic cues which might be useful in distinguishing between a participial adjective phrase and a main verb with auxilary deleted (a common occurrence in the speech of black children). The noun phrases were coded in a similar fashion, except that the tapes were used only sparingly for this part of the coding. Another coding sheet was prepared for the noun phrases. The information on the coding sheets--for both noun phrases and verb-complement units--was later punched on IBM cards with the formats specified in the coding manual (Appendix C).

As mentioned earlier, something less than perfect coding reliability was anticipated, even though the coders were given a very explicit manual and extensive training in its use. The sheer complexity of the coding system, along with the not infrequent occurrence of problematic utterances, made a certain amount of judgmental error

inevitable. In addition, clerical errors were bound to occur in the recording of so many coding decisions. Thus it was important to assess the degree of coding reliability. The general strategy for doing this was to compare each coder's performance with the correct coding of the same material. To determine the "correct" coding of a given transcript, it was coded independently by the two principal authors of the coding manual, who then compared their work in order to resolve any differences between them. This procedure was carried out with a sample of four transcripts for each of the five coders. Each set of four transcripts was constructed by selecting at random one transcript from each treatment group within the lower-class black sample and from the middle-class white sample.

It became apparent early in the study that some aspects of the interview coding task were more difficult than others. An overall estimate of the error rate in coding was therefore not as meaningful as an assessment of reliability with respect to each of the features coded-- type of unit, grammatical function, environment, and so on. Table 3 shows the error rates for the major coding features as average proportions of total units coded jointly by the individual coder and in the correct version. The identification of codable units was another area in which error could occur, so Table 3 also indicates the average proportion of unit differences per transcript. These reliability data indicate that the average within-feature error rate was, without exception, below 11%, and was generally below 5%.

Insert Table 3 about here

Despite the generally low error rates shown in Table 3, a further study of the errors which were made was desirable for two reasons. First, a knowledge of the most common confusions in coding would be useful for later interpretation of results. Second, because the reliability check was begun while coding was still in progress, it was possible to inform each coder about his or her most frequent errors. Hopefully this information improved the accuracy of subsequent coding. In addition, each coder reviewed his previously coded transcripts with an eye toward correcting particular errors. It is important to note that the correcting of one error often led to the correction of several others, due to dependencies among the various features being coded. Consequently, the figures presented in Table 3 represent an overly conservative estimate of reliability, having been obtained before correction.

Table 3

Mean Proportion of Errors in Coding Major Features of Verb-Complement Units and Noun Phrases

Verb-Complement Units		Noun Phrases	
Feature Coded	Proportion of errors	Feature Coded	Proportion of errors
Type of Pattern	.108	Type of Noun Phrase	.016
Expansion-Deletion	.108	Slots Filled[b]	.009
Type of Deletion	.067	Type of Head Noun	.045
Grammatical Function	.027	Function:	
Introducer	.040	Simple Constituent	.004
Coordination	.044	Adverbial	.023
Modification[a]	.036	Prepositional Phrase	.001
Environment	.087	Appositive	.003
Unit Differences	.063	Unit Differences	.032

[a]Includes both "Specific Thing" and "Larger Unit" codes.

[b]Average across all noun phrase slots.

Coding of the Sentence Imitation Test

Tapes of the sentence imitation sessions were transcribed in a manner similar to the interview tapes. A single coder assigned each response to one of six categories (see Rohwer & Ammon, 1971, Appendix F). Only three types of response are important for the present research:

Essentially Correct--essentially verbatim responses, with some minor deviations permitted.

Nonstandard Approximation--responses containing superficial deviations associated with child language or black English; surface structure and meaning of the model sentence are preserved.

Clearly Wrong--base structure or lexical content of the model sentence changed in some way.

To assess coding reliability with respect to the Sentence Imitation Test, a random sample of 20 protocols was scored independently by a second coder. His coding matched that of the regular coder on 98% of the items coded.

RESULTS AND DISCUSSION

Syntactic Elaboration in the Speech of Lower-Class Black and Middle-Class White Children

The coding of the pretest Picture Interviews from the lower-class black sample (N = 69), along with the interviews from the middle-class white sample (N = 30), provided the raw data for a comparison of the two groups with respect to syntactic elaboration. To begin the analysis, the frequency of each code was computed for both the verb-complement units and the noun phrases produced by every subject. In other words, each of these frequencies represented the total number of units to which a given code was assigned in the speech sample obtained from a particular child. All of the following analyses are based on such frequencies. A descriptive analysis of several coding features will be followed by a summary of the statistical tests which were applied to the data.

Before the results are presented, two preliminary items must be discussed. First, it is very important to bear in mind that all of the frequencies reported below are situation-bound to some unknown extent. The high frequency of one syntactic form, or the absence of another, might simply reflect the particular setting in which the present speech data were collected; different results might well have been obtained from the same subjects in a different situation. The second item concerns notation. For the sake of convenience, verb-complement units and noun phrases will generally be referred to by their initials, VC and NP. In addition, the lower-class black and middle-class white samples will simply be called "black" and "white." These labels are not intended to imply that any differences observed between the two groups can be attributed to race per se.

Omission of Certain Units

Three classes of VC units were removed from the data at the outset, because it seemed that their presence would detract from a valid assessment of syntactic elaboration. The first to be removed were those VC units whose basic patterns could not be determined. The omission of these units was necessitated by the fact that the coding of several other features presupposed that the unit had been assigned a specific VC pattern. The average number of units falling into this indeterminate category was 3.4 for the black sample and 1.9 for the white sample. These figures do not include false starts and other fragmentary utterances, which were not coded at all.

A second type of unit to be excluded was the category of exact repetitions of something which the child had just said. Such repetitions were often requested by the interviewer for the sake of clarification. The respective means for the black and white samples were 4.6 and 4.1 units.

Finally, those VC units which had been coded as "stereotyped" were also removed from the data. These units generally indicated that a child did not wish to answer a question or say any more than had been said already; they included such utterances as "I don't know," "Nothing," and "That's all." The mean number of units in this category was 5.6 for black subjects and 6.6 for the white subjects. It is interesting to note that these figures provide no evidence that the black children were more reluctant than the white children to engage in conversation with the interviewers.

Also omitted from further analysis were all of the noun phrases which occurred within the excluded VC units. The remaining units--both VC and NP--were then examined with respect to a large number of features which had been coded. A descriptive analysis of these features is presented in the next several sections.

Expansion-Deletion

The data on expansion and deletion in VC units provide a good overview of possible elaboration differences between the two groups. The sample means for each of the four expansion-deletion codes are displayed in Table 4, along with means for total VC units produced. With regard to the latter, it can be seen that the two groups did not differ a great deal in overall production of units, the black subjects averaging 6-7 units more than the white subjects. However, the standard deviations on this measure were 74.7 and 64.0 for the black and white samples, indicating a large amount of variability within both groups.

Insert Table 4 about here

With regard to syntactic elaboration, the addition of any elaborative element to a sentence was coded as an expansion. Thus the two expansion codes taken together--codes 2 and 4--represent a very global measure of elaboration. There was virtually no difference between the two samples with respect to the relative frequency of expanded and unexpanded VC units; in both groups, 56-57% of the units were expanded in some way. (The groups did differ in the frequency of deletions, but this finding will be explored later.) Despite the lack of an overall difference in frequency of expanded units, there still could be both quantitative and qualitative differences in the expansions produced by the two groups. That is, the expanded VC units of one group might contain more elaborative elements, on the average, than the expanded units of the other group. Also, the kind of expansion might differ from one group to the other. To begin exploring these possibilities, it is useful to examine the grammatical function codes for VC units.

Table 4

Mean Frequency of VC Expansion-Deletion Codes

Code	Black Ss	White Ss
Minimum Form (1)[a]	27.4	29.9
Minimum Form + Expansion (2)	52.4	55.4
Minimum Form + Deletion (3)	35.0	29.5
Expansion + Deletion (4)	28.3	22.0
Total	143.1	136.8

[a]Coding symbols are shown in parentheses; see coding manual in Appendix C.

Grammatical Functions of Verb-Complement Units

The mean frequencies of all VC functions are displayed in Table 5. Four of the functions occurred with mean frequencies of 0.2 or less and therefore need no further discussion. In both groups of subjects, a large majority of the VCs were coded as main verbs (4) in function--81% of the total units for the black sample, and 79% for the white sample. The second most frequent function was that of complement constituent (6), on which the black subjects produced a slightly higher mean. This function is not directly relevant to the study of elaboration per se, because elaborative elements are not themselves basic constituents of VC units, but rather modify such constituents or combinations thereof. (However, the function 6 data will be analyzed further below.) The category called "parenthetical clause" (3) actually refers to such filler items as you know, I mean, or I think. Although Bernstein (1970) has claimed that the use of such fillers is related to his distinction between elaborated and restrict ways of speaking, their status as syntactic elaborators is questionable. In the present data, the white sample produced slightly more units of this type.

Insert Table 5 about here

There remain four function categories which clearly do represent the use of VC units for the purpose of elaboration: functions 1, 2, 9, and 0. The white sample produced higher frequencies in three of these four categories. However, the only difference greater than 1 occurred on dependent adverbial clauses (1). A related variable is the number of different VC functions produced by each subject. The respective means for the black and white samples were 4.8 and 5.4 out of a possible 11.

In sum, the overall use of VC units as elaborative elements was not very frequent for either of the present samples--7% for the black group and 9% for the white group. Thus the white subjects used this kind of elaboration slightly more often. There is little evidence of a group difference in the relative frequency with which particular VC functions occurred within groups.

Specific Things Modified by Verb-Complement Units

The coding feature called "specific thing modified" is of interest at this point because of the possibility that the two samples might have differed with regard to the particular sentence elements which were modified by VC units performing an elaborative function. Table 6 contains tne group means for each modification code.

Insert Table 6 about here

Table 5

Mean Frequency of VC Grammatical Functions

Function	Black Ss	White Ss
Dependent Adverbial Clause (1)	5.8	7.9
Relative Clause (2)	1.6	2.3
Parenthetical Clause (3)	.8	1.3
Main Verb (4)	116.4	108.5
Subject Constituent (5)	.1	.1
Complement Constituent (6)	15.9	15.1
Clause Modifying an Adjective (7)	.0	.1
Object of a Preposition (8)	.2	.2
Participial or Infinitive Adj. Phrase (9)	1.4	1.5
Participial or Infinitive Adv. Phrase (0)	1.0	.7
Verb Appositive (A)	.0	.0

Table 6

Mean Frequency of Specific Things Modified by VC Units

Specific Thing Modified	Black Ss	White Ss
Nothing (0)	133.2	125.0
Adverb (1)	.1	.1
Noun with Unknown Function (2)	.0	.0
Verb (4)	.4	.5
Subject (5)	.2	.6
Noun or Adj. Complement, or Direct Object (6)	2.7	3.3
Whole Sentence (7)	6.2	8.3
Adjective (not complement) (8)	.1	.0
Object of Preposition (9)	.2	.2
Noun in Adverbial NP (A)	.0	.0

The most frequent modification code is, of course, the "nothing" code (0). This frequency equals the sum of the frequencies for non-elaborative VC functions in Table 5, primarily main verbs and complement constituents. It is clear from Table 6 that only two things were modified by VC units with any frequency to speak of--whole sentences (7) and noun or adjective complements, or direct objects (6). It seems likely that the first of these frequencies reflects the use of dependent adverbial clauses, while the second is largely due to relative clauses. These correspondences are further indicated by within-group correlations of .97-.99 and .71-.74 between the respective function and modification codes.

The generally slight differences in favor of the white subjects on modification codes other than 0 simply follows from the group difference already observed in elaborative function codes. More importantly, Table 6 provides no support for the idea that the black and white subjects used elaborative VCs to modify different sentence elements; the relative frequencies of modification were quite parallel for the two groups.

Functions of Larger Units Containing Verb-Complement Units

A second aspect of VC modification coded in the present study was the grammatical function of the larger unit containing the particular VC being coded. The data on this feature are presented in Table 7. By far the most frequent category was that of main verb (1). The remaining categories, taken together, comprise a measure of "second-order" complexity in elaboration. That is, they reflect the extent to which a child embedded subordinate VC units in other subordinate VC units. It can be seen that neither group did this type of embedding very often. However, the white sample did it slightly more often--7% of all subordinate VC units, as opposed to 5% for the black sample.

Insert Table 7 about here

Types of Noun Phrases

Several aspects of the VC units have yet to be examined, but it is time now to consider the other unit of analysis, the noun phrase, in this initial survey of variables which are pertinent to syntactic elaboration. Just as VC units may be used to elaborate on the basic elements of a sentence, so may NPs perform this function too. A good point of departure in looking at the elaborative use of NPs is the coding of NP types. All NPs (or NP parts, in the case of coordinate NPs) were categorized as one of the four types shown in Table 8. These frequencies do not include NPs which occurred in the VC units excluded from the preceding analyses.

Table 7

Mean Frequency of Function of Larger Unit Containing VC

Function of Larger Unit	Blacks Ss	White Ss
Main VC Unit (1)	25.3	27.1
Adverbial Clause (2)	.5	.8
Relative Clause (3)	.2	.2
Subject (5)	.0	.0
Complement or Direct Object (6)	.5	.8
Adjective Clause or Phrase (7)	.0	.1
Object of Preposition (8)	.0	.0
Adverbial Phrase (9)	.1	.0

Insert Table 8 about here

A large majority of the NPs produced by both groups (83-84%) were of the simple constituent type. These NPs were either the constituents of main VC units, or of subordinate VC units, and therefore they add no new information about syntactic elaboration. The category of NPs serving as objects of prepositions contains a mixture of elaborative and non-elaborative NPs which will be separated presently. That leaves the categories of adverbial and appositive NPs, both of which are elaborative but also were quite infrequent in the present data.

Grammatical Functions of Prepositional Noun Phrases

In order to distinguish elaborative from non-elaborative prepositional NPs, it is necessary to examine the function code for this type of NP (see Table 9). Only functions 8 and 9 represent constituents rather than elaborative elements. With these two classes removed, there remains a substantial number of NPs which serve a variety of elaborative functions. The total means for such elaborative phrases are 27.8 and 23.7 for the black and white samples respectively.

Insert Table 9 about here

Function 7, modifies verb, was clearly the most frequent single function. The group difference in this category is practically sufficient to account for the overall difference in prepositional NPs, which in turn accounts for the small difference in total NPs (see Table 8). The fact that the black subjects produced a higher frequency of prepositional phrases modifying verbs is interesting because it reverses the general trend of the small elaboration differences found so far. This finding will be interpreted further in the light of subsequent analyses.

Functions of Adverbial Noun Phrases

A similar analysis of adverbial NP functions is presented in Table 10. There is virtually no evidence of group differences in the various functions performed by adverbial NPs. In addition, it can be seen that approximately half of the adverbial NPs functioned as modifiers of adjectives. The great majority of these NPs can be traced to children's discussions of their ages and the ages of siblings. In such responses as four years old, the NP four years modifies the

Table 8

Mean Frequency NP Types

NP Type	Black Ss	White Ss
Simple Constituent	184.0	184.2
Object of Preposition	34.1	29.9
Adverbial	2.8	3.2
Appositive	.7	1.1
Total	221.6	218.4

Table 9

Mean Frequency of Prepositional NP Functions

Function	Black Ss	White Ss
Modifies Subject (1)	1.1	.8
Modifies Direct Object (2)	2.3	2.4
Modifies Indirect Object (3)	.0	.0
Modifies Subj. or Obj. Complement (4)	1.3	.9
Modifies Object of Preposition (5)	.7	.7
Cannot Determine Function (6)	.1	.0
Modifies Verb (7)	21.9	18.3
Indirect Object (8)	.1	.1
Subj. or Obj. Complement (9)	6.1	6.2
Modifies Adjective (not Complement) (A)	.0	.0
Modifies Sentence (B)	.4	.6
Modifies Vocative (C)	.0	.0

adjective old. Thus the actual frequency of elaborative adverbial NPs was even lower than it had first appeared. As for appositive NPs, they were simply too infrequent to make an analysis of their functions worthwhile.

- - - - - - - - - - - - - - -

Insert Table 10 about here

- - - - - - - - - - - - - - -

Pre-Head Noun Phrase Slots

Thus far the analysis of noun phrases has focused on the extent to which NPs were used to elaborate other elements of a sentence. But elaboration may also have occurred within the NPs themselves, the head noun being modified in various ways. With a few exceptions, the preceding analyses have not touched upon this area of elaboration. For the purpose of coding elaboration within NPs, the "slot grammar" described by Gleason (1965) has been adopted with minor modifications.

This analysis comes in two parts, the first of which deals with the NP slots that ordinarily precede the head noun. Table 11 shows the mean frequency with which each pre-head slot was filled by the two samples of subjects. Some of the slots can only be occupied by a single word (e.g. an article), whereas others permit more complex kinds of fillers. For present purposes, however, all kinds of fillers have been pooled in one overall frequency count. The N-5 slot has been split into articles and other determiners; these two categories have the same slot number because they cannot be filled simultaneously.

- - - - - - - - - - - - - - -

Insert Table 11 about here

- - - - - - - - - - - - - - -

It is evident from Table 11 that the two groups were highly similar in their use of the various pre-head NP slots. The only difference of any size occurred in the N-5, other determiner, slot, where the black children produced an average of 5 more fillers that the white children. This slot covers a variety of adjective forms, including demonstratives, indefinites, and possessives, along with possessive nouns. It is not clear why one or more of these determiners would have been produced more frequently by the black sample, however, an interpretation will be suggested below in connection with some other data. The group differences in other pre-head slots were quite small -- about 1 or less, on the average--with neither group showing a consistent advantage over the other.

Table 10

Mean Frequency of Adverbial NP Functions

Function: NP modifies	Black Ss	White Ss
Adjective (4)	1.5	1.4
Cannot Determine (6)	.0	.1
Verb (7)	.8	.9
Sentence (8)	.4	.6
Another Adverb (9)	.2	.2

Table 11

Mean Frequency with which Pre-Head NP Slots were Filled

Slot	Black Ss	White Ss
N-6: Predeterminer	1.1	1.2
N-5: Article	54.9	54.4
N-5: Other Determiners	27.7	22.7
N-4: Numerals	3.5	4.6
N-3: Specifiers, Ordinals, Superlatives	1.1	.8
N-2: Attributive Adjectives	8.8	8.3
N-1: Noun Modifier of Head Noun	3.1	3.8

Post-Head Noun Phrase Slots

The data on post-head NP slots are displayed in Table 12. In addition to the six actual slots, means are also reported for adjectives or adverbs which occurred as complements of a noun, instead of being part of the noun phrase itself.

Insert Table 12 about here

It can be seen in Table 12 that both the relative and absolute values are highly similar within the two groups of subjects. In all six slots, the group means differ by less than 1. The largest of these differences shows that the black children produced more pronominal appositives (N+5) than their white peers. The direction of this difference is consistent with other sociolinguistic data on pronominal appositives (Shuy, Wolfram, & Riley, 1967), and with the claim that such appositives are used by black speakers to mark the beginning of sentence predicates in lieu of copular and auxiliary verbs (Dillard, 1971). However, even the black children in the present sample averaged only about 1 pronominal appositive each, perhaps because their sentence subjects were generally not complex enough to necessitate the use of a special marker between subject and predicate. The low means in all six post-head slots support this interpretation.

There was more frequent use of adjective and adverb complements by both groups, with a noticeable difference in favor of the white subjects. In some cases, the words and phrases occurring in this position might alternatively have been located in the N-3, N-2, N+2, or N+3 slots (and vice versa). It is interesting to note, therefore, that a reverse difference in favor of the black sample occurred in the first three of these four slots (with no difference in the N+3 slot). While these differences only sum to about 1.4--as opposed to the 4.4 difference in adjective and adverb complements--they suggest nonetheless a possible stylistic difference in the speech of the black and white children with respect to the location of adjectives and adverbs in relation to nouns. It is conceivable that this style difference also relates to the difference already observed with regard to relative clauses (Table 5); the black children might have preferred to say, for example, a red shirt versus a shirt that is red. Although these two constructions differ in length, neither one seems inherently more "elaborated" than the other. It can be argued that the relative clause is less complex linguistically, in terms of its transformational derivation, but more complex psychologically, so far as processing by a listener or speaker is concerned (Bever & Langendoen, 1971). However, neither kind of complexity can be equated with elaboration in any one-to-one fashion.

Table 12

Mean Frequency with which Post-Head NP Slots were Filled

Slot	Black Ss	White Ss
N + 1: Descriptive Prep. Phrase; Appositives	4.0	3.4
N + 2: Locative Post-Noun Modifier	1.0	.4
N + 3: Locative Prepositional Phrase	.6	.6
N + 4: Relative Clause; Participial or Infinitive Phrase; Interpolated Sentence	2.4	2.7
N + 5: Pronominal Appositive	.9	.1
N + 6: Post-Noun *all*, *both*, *else*	.7	1.4
Adjective or Adverb Complement	12.4	16.8

Verb-Complement Units and Noun Phrases by Part of Interview

The frequencies presented thus far have been those which would reflect group differences in syntactic elaboration, other things being equal. The two groups were found to have produced essentially the same frequency of expanded VC units, but there were some indications of group differences with regard to the types of expansions which occurred. In general, the white sample made slightly greater use of subordinate VC units to perform elaborative functions. On the other hand, the black sample had a slight tendency toward greater elaborative use of prepositional noun phrases and greater elaboration within certain parts of the NPs themselves. It is important, however, to interpret these results in relation to other data from the Picture Interview, in order to see whether or not "other things" were in fact equal. Therefore the focus shifts now to a search for possible group differences in the context and content of the VCs and NPs whose elaborative characteristics have already been examined.

The broadest contextual feature of the units coded in the present study is represented by the part-of-interview code. The distribution of NP and VC units by part of interview is shown in Table 13. Once again, the overall impression is one of great similarity between groups; the relative frequencies within the two samples were generally parallel. However, the white subjects did produce more VC units than the black subjects in the warm-up portion of the interview, while the black subjects had a substantially higher mean for the picture part of the interview, as a whole. This difference in distribution is not great; the black sample produced 71% of their VCs on the pictures as opposed to 68% for the white sample. Essentially the same pattern emerges from the NP data, where the corresponding percentages are 73% and 69%.

- - - - - - - - - - - - - - -

Insert Table 13 about here

- - - - - - - - - - - - - - -

The fact that the black subjects produced somewhat more speech in the picture part of the interview suggests a way of interpreting their higher mean in the NP slot labeled N-5: Other Determiner. Among other things, this slot contains demonstrative adjectives, as in That man is fixing those toys. The use of such demonstratives seems more likely to have occurred in responses to pictures than in responses to warm-up questions, because the latter generally did not deal with objects in the immediate interview setting. Thus the higher frequency in the N-5 slot for black subjects may have resulted from a greater volume of speech in response to pictures, rather than a general propensity toward the use of demonstratives per se. If so, the question would still remain as to why the black sample produced more speech in response to pictures.

Table 13

Mean Frequency of VC and NP by Part of Interview

	VC Units		Noun Phrases	
Part	Black Ss	White Ss	Black Ss	White Ss
Warm-up	39.9	44.0	60.4	67.4
Picture 1	16.5	16.4	28.3	29.5
Picture 2	16.8	12.1	24.2	19.1
Picture 3	14.5	14.9	22.9	24.4
Picture 4	13.4	12.5	20.2	18.5
Picture 5	21.3	18.5	37.8	34.9
Picture 6	20.8	18.3	26.5	24.7
Total Pictures	103.3	92.7	159.9	151.1

Environments of Verb-Complement Units

A second level of context is reflected in the VC environment code. The term "environment" here refers to the type of speech--either the interviewer's or the child's--which immediately preceded the VC unit being coded. The frequency data on VC environments are displayed in Table 14. Although a large number of environment types were distinguished in the coding system, it can be seen that nearly half of all the VC units occurred as the initial response to a question, request, or command from the interviewer (B). The absolute frequency of units in this environment was nearly identical for the two groups of subjects, suggesting some degree of constancy from one group to the other in the administration of the interview.

Insert Table 14 about here

Most of the remaining VC units fell into one of five environment categories: D, F, L, P, or Q. In the first three of these environments, the black sample produced a higher frequency than the white sample, by about 2-3 units in each category. These three environments appear to represent very much the same kind of behavior, namely instances in which the child continues a response that he initiated in a previous unit. The functional equivalence of the three categories is further evidenced by data from the check on coding reliability, in that some of the most frequent errors in coding involved confusions of environments D, F, and L with each other. Environments F and L were confused because of difficulties in determining whether a child had coordinated two sentences or had simply begun a new sentence with and. Both of these environments were also confused with environments D, when it was unclear whether a child had responded to a non-directive prompt (uh-huh, etc.) or would have continued his previous response anyway. Despite these coding confusions (which would limit the reliability of the individual frequencies), the three variables in question still correlated rather well with each other, as shown in Table 15. In contrast, none of the three correlated very well with the number of units in B-type environments. For all these reasons, it seems appropriate to combine the frequencies for D, F, and L environments into an overall measure of "continuations." The group means on this measure are 51.3 and 43.8, indicating more clearly the difference in favor of the black subjects.

Insert Table 15 about here

The above finding with regard to continuations runs counter to the lore (Labov, 1970) and the data (Williams & Naremore, 1969a) which predict that lower-class black children are less likely to go beyond

Table 14

Mean Frequency of VC Environment Codes

Relation of Unit to Environment	Black Ss	White Ss
Initial Units:		
In Response to Question, Request, Command (B)	65.9	66.1
After Statement by Interviewer (C)	1.6	1.7
In Response to Non-Directive Prompt (D)	17.4	15.2
Initiated by Child (E)	2.4	1.4
Non-Initial Units:		
Main Clause Unit after and (F)	13.3	11.3
Dependent Unit after and (G)	.8	.4
Main Clause Unit after but (H)	.7	1.6
Dependent Unit after but (I)	.0	.0
Main Clause Unit after or (J)	.0	.2
Dependent Unit after or (K)	.0	.0
First Clause in New Sentence (L)	20.6	17.3
Main after Dependent Unit (M)	1.8	1.4
Depend. after Dependent Unit, Modifier (N)	1.1	1.5
Depend. after Dependent Unit, Constituent (O)	1.3	1.7
Depend. after Main Unit, Modifier (P)	5.1	6.8
Depend. after Main Unit, Constituent (Q)	10.9	10.7
Child Answers own Question (R)	.2	.2
Depend. Unit Introducing 2nd Coord. Main (S)	.2	.3

Table 15

Intercorrelations of Selected VC Environment Frequencies

Black Ss				White Ss			
	D	F	L		D	F	L
B	.16	-.12	-.03	B	.26	-.07	.01
D		.60	.64	D		.35	.57
F			.74	F			.63

minimal responses to the questions asked in an interview. Labov has argued that ghetto children behave this way because they do not feel comfortable in the usual interview situation. If anything, the black subjects in the present study actually may have felt more at ease than the white subjects. This suggestion gains some support from the finding that the white subjects produced a slightly higher frequency of "stereotyped" VC units, which generally indicated a reluctance to respond in a more extended fashion.

With regard to the P and Q environments, the group differences were relatively small, but they necessarily ran parallel to some findings already reported for VC functions. That is, VC units functioning as dependent adverbial clauses generally would contribute to the frequency of environment P (and N), and the white sample produced higher means in both cases. Similarly, just as there was very little difference between groups with regard to the overall frequency of complement constituent functions, there was virtually no difference in environment Q, where most units functioning as complement constituents would have occurred.

Before leaving the environment codes, it is interesting to note how seldom the subjects in both groups used the conjunctions but and or to coordinate VC units (see codes H, I, J, and K). The white sample did use these forms slightly more often than the black sample. The white sample's more frequent use of but, in particular, might account for some--but not all--of the difference favoring the black sample in the use of and. If so, this might indicate a more highly differentiated use of coordinating conjunctions on the part of the white subjects.

Verb-Complement-Patterns

Verb-complement units vary with regard to their basic constituent structures. In the present study, these structural variations were coded in terms of 18 different structural patterns. It is important to look for group differences in the frequency with which the various patterns occurred, because the type of pattern used might affect the nature and extent of elaboration that is possible with a given unit. The means of both groups for all VC patterns are presented in Table 16. Because some of the patterns were defined to be quite narrow while others were much broader, the distribution of VC units by pattern was very uneven. The three most frequent patterns--A, D, and S--accounted for 71% of all units produced within both groups. As usual, the data for the two groups seem quite similar overall, but there are some interesting differences too.

Insert Table 16 about here

Table 16

Mean Frequency of VC Patterns

Pattern[a]	Black Ss	White Ss
$V_{intrans}$ (A)	39.7	31.1
V_{link} + S $Comp_{adj}$ (B)	2.1	3.6
V_{link} + S $Comp_{noun}$ (C)	.1	.0
V_{trans} + DO (D)	41.3	44.9
V_{trans} + IO + DO (E)	1.1	.8
V_{trans} + DO + O $Comp_{adj\ or\ noun}$ (F)	.3	.3
V_{trans} + DO + O $Comp_{noun\ only}$ (G)	.3	.3
V_{cop} + S $Comp_{adv}$ (H)	7.9	9.5
V_{cop} + S $Comp_{adj}$ (I)	7.3	9.5
V_{trans} + DO [no passive] (J)	7.1	6.3
V_{trans} + $DO_{measure}$ (K)	.0	.0
V_{trans} + (IO) + Comp (L)	.0	.0
V_{trans} + DO + DO (M)	.5	.5
V_{trans} + DO [inseparable verb + prep.] (N)	3.4	3.5
V_{trans} + DO [separable verb + particle] (O)	2.7	1.2
V_{put} + DO + Locative (P)	1.9	1.3
V_{cat} + (IO) $Comp_{verbal}$ (Q)	6.4	3.3
V_{cop} + S $Comp_{noun}$ (S)	21.1	21.5

[a]
V = verb
intrans = intransitive
link = linking
trans = transitive
cop = copular
cat = catenative
S Comp = subject complement
O Comp = object complement
DO = direct object
IO = indirect object
adj = adjective
adv = adverbial

The largest group difference in absolute frequency occurred with respect to the intransitive verb pattern (A), where the black subjects averaged about 8 or 9 units more than the white subjects. It seems very likely that this difference is related to the earlier finding that the black sample produced more noun phrases serving as the objects of prepositions, particularly in prepositional phrases which modified a verb (see Tables 8 and 9). Many of the intransitive verbs used in A patterns--verbs like go or walk--almost require a word or phrase to indicate the location or destination of the action labeled by the verb. Thus a higher frequency of VC units containing such verbs would have resulted in a higher frequency of prepositional NPs. However, there is still the question of why the black children might have produced more VC units of this type. A second, minor source of the group difference on pattern A was probably the Black English presentative, as in There go a elephant. Such units were coded as pattern A, due to the verb go, while the Standard English form, There is a . . . , was coded as pattern H. However, the mean frequency of non-standard presentatives was less than 1 per subject in the black sample.

A small but consistent difference in favor of the white sample occurred on all three of the VC patterns containing an adjective or adverbial complement of the subject--patterns B, H, and I. Actually, this difference has already revealed itself in the analysis of post-head NP slots, where the main difference between groups occurred in the complement position (see Table 12). In addition, however, this finding--together with the group difference on pattern A--suggests a more general difference in the kinds of things which the black and white subjects talked about. While the white group tended to emphasize the attributes of objects being discussed, the black children were slightly more inclined to talk about actions.

Another notable group difference shown in Table 16 is the higher frequency of catenative verb patterns (Q) for the black sample. This may be another indication of the black children's greater propensity to talk about actions, e.g. He's trying to go down the slide. But this finding also relates to the data on the grammatical functions of VC units. By definition, any unit with pattern Q must contain at least one other VC unit that functions as a complement constituent (e.g. to go down the slide in the example cited above). Thus, other things being equal, a higher frequency of pattern Q would result in a higher frequency of VCs functioning as complement constituents. But Table 5 shows very little difference between groups with respect to this function, despite the difference favoring black subjects on pattern Q. However, the frequencies for complement constituents reflect other VC patterns beside Q. Most often, these other complement constituents occurred in sentences like He said he would help me. In this example, the verbal complement acts as a direct object in the larger unit, which has a D-type pattern. It is quite likely, therefore, that the higher overall frequency of pattern D for the white subjects resulted from their greater use of such verbs as say, think, and know, which often take a verbal construction as direct object.

Introducers of Complement Constituents

In the preceding section, it was suggested that group differences in the frequency of some VC patterns might indicate parallel differences in the type (but not the quantity) of verbal complement constituents used by each sample. It was inferred that the black sample produced more complements of catenative verbs, while the white sample had more VC units acting as direct objects. This inference can be pursued further by examination of the data on introducers of complement constituents. The relevant means are presented in Table 17.

Insert Table 17 about here

Three introducer codes were the most likely ones to have occurred in connection with the complements of catenative verbs: to (C), ing (D), and obligatory deletions with some catenative (1). It is quite consistent with the preceding discussion, then, to find that the black sample had higher mean frequencies than the white sample on all of these codes.

As for VC units acting as direct objects, there are four principal codes to be examined. The wh- word code (A) would occur with examples such as I know what that is. Code B refers to something like He said that he would come. Code 5 refers to the deletion of that in the last example. Finally, code E applies to direct quotations, as in He say, "Get out of my way." The first three of these codes (A, B, and 5) all revealed a difference in favor of the white sample, lending considerable support to the inference made above. The last code (E) showed a higher mean for the black subjects, perhaps indicating a stylistic preference for direct versus indirect quotation. However, this difference is not large enough to cancel out the overall difference favoring the white sample in the production of VC units acting as direct objects. In fact the net difference of 3.6 is exactly equal to the difference between groups in the overall frequency of pattern D, transitive verb + direct object.

Introducers of Dependent Adverbial Clauses

A second class of introducers--those which occurred with dependent adverbial clauses--may be examined to shed further light on the analysis of VC functions. It can be seen in Table 18 that about one half of the dependent adverbial clauses were introduced by the word because (A). Moreover, the white subjects averaged nearly twice as many uses of because as the black subjects. This difference is more than enough to account for the higher total production of dependent adverbial clauses by the white subjects. Indeed, the black subjects produced more instances of the second most frequent introducer, when (E), relative to the white subjects. It would be interesting to

Table 17

Mean Frequency of Complement Constituent Introducers

Introducer[a]	Black Ss	White Ss
Supplied:		
Wh-word (A)	2.1	3.5
That (B)	.0	.3
To (C)	6.4	2.3
-ing (D)	.3	.2
"Quotes" (E)	1.9	1.0
Wh-word + to (Q)	.2	.1
Deleted:		
Obligatory with some Catenatives (1)	.7	.4
Optional with Compounds (2)	.5	.3
Optional in Answer to Question	2.3	2.2
Optional with Clauses (5)	1.4	4.2
Because Interviewer Asked for Clarification (6)	.5	.1
Optional with Dependent Phrases (7)	.2	.1
Nonstandard (9)	.2	.1

[a]Only codes with mean = 0.2 or more in at least one group are listed.

see whether the white children simply made more frequent use of because spontaneously, or were asked more why questions, or chose more often to answer why questions. This type of analysis has yet to be done.

- - - - - - - - - - - - -

Insert Table 18 about here

- - - - - - - - - - - - -

Types of Head Nouns

Turning again from VC units to noun phrases, it will be recalled that the analyses of the NP data have thus far whown only minimal differences between the two samples. However, it is still possible that further details of the NP coding will reveal differences which were not detected before. One important detail is the type of head noun occurring in each NP. Information about head nouns is needed for further interpretation of the NP slot data, because the use of some head noun types precludes the filling of some of the slots. In addition, the use of pronouns as heads of NPs is of particular interest, because users of a restricted code are said to rely heavily on personal pronouns in expressing themselves, rather than using nouns which would make their meanings more explicit. The mean frequencies for all types of head nouns are presented in Table 19.

- - - - - - - - - - - - -

Insert Table 19 about here

- - - - - - - - - - - - -

The two samples seem remarkably similar overall. The group differences in absolute frequencies of particular head noun types were uniformly small. The two largest differences occurred on demonstrative pronouns (H) and noun substitutes (M)--a difference of 2.1 favoring the black subjects in each case. Both of these types of head noun are "deictic" and therefore are likely to be used with reference to something immediately present, such as a picture. In this regard, the two head noun types are similar to the demonstrative adjectives discussed in connection with the N-5 noun phrase slot. As suggested earlier, any differences favoring the black sample on these forms may have resulted, to some extent, from the black children's greater overall production of NPs in the picture part of the interview.

Functions of Constituent Noun Phrases

The great majority of NPs produced by the subjects in both groups were of the simple constituent type (see Table 8). Although the total frequency of constituent NPs was quite similar for the two samples, this would not rule out the possibility of group differences in the frequency with which these NPs performed specific grammatical functions. The data on constituent NP functions are displayed in Table 20.

Table 18

Mean Frequency of Dependent Adverbial Clause Introducers

Introducer*	Black Ss	White Ss
Because (A)	2.5	4.8
If (C)	.6	.7
When (E)	1.6	.8
Before (F)	.0	.3
Like (H)	.1	.2
So, or So that (I)	.4	.5
Optional Deletion in Compound (Z)	.2	.2

*Only codes with Mean = 0.2 or more in at least one group are listed.

Table 19

Mean Frequency of Head Noun Types

Type of Head Noun	Black Ss	White Ss
Common Count (A)	91.5	92.7
Common Mass (B)	7.6	6.8
Proper (C)	10.4	10.5
Pronouns:		
Personal (D)	72.8	72.4
Possessive (E)	.1	.1
Reflexive (F)	.5	.2
Definite Relative (G)	.6	1.2
Demonstrative (H)	13.6	11.5
Indefinite (I)	9.7	8.8
Interrogative or Indefinite Relative (J)	3.6	5.4
Reciprocal (K)	.0	.1
Impersonal or Situation *it*, and Existence *there* (L)	.8	.7
Noun Substitute (M)	4.0	1.9
"Pants"-Type Plural (N)	1.0	.8
State Noun (P)	.6	.4
Other Nouns (Q)	2.1	1.9
Deleted (blank)	2.5	2.8

- - - - - - - - - - - - -

Insert Table 20 about here

- - - - - - - - - - - - -

Considering the size of the means in Table 20, the only really striking difference is the higher frequency of subject NPs (1) for the white sample. Two general factors could account for such a difference: coordination and deletion. That is, the white children could have produced more coordinated NPs as subjects of their VC units and/or the black children could have deleted more of their subjects. With regard to coordination, the data from the coordination code show that, overall, the black and white samples produced an average of 30.7 and 29.3 coordinate NPs respectively. Of course it is still possible that the white children tended to do their coordinating in grammatical subjects, while the black children more often coordinated NPs in other kinds of constituents. This hypothesis would have to be tested by a more direct analysis.

As for the deletion of subject NPs, such deletions are required in some contexts and optional in others. For example, in I tried to explain, the subject of explain must be deleted; it is understood to be the same as the subject of tried. Since the black children are known to have produced more catenative verb constructions (pattern Q), they may well have had more subject deletions of this type. Optional subject deletions often occur in answers to questions, as in What are they doing? Climbing a tree. The data presented thus far provide no information on the relative frequency of optional deletions such as this one. It is necessary, therefore, to look at one more coding feature, the types of deletions in VC units.

Types of Deletions in Verb-Complement Units

The present analysis began with the coding of VC units for expansion-deletion. It was observed that the overall frequency of expanded units was virtually identical for both samples of subjects. However, the same data (Table 4) also gave indications of a group difference in the overall frequency of VC units with deletions. This difference can be seen more clearly in Table 21, which presents data on the various types of deletions which were coded, including instances of no deletion. The white subjects produced an average of about 6 more units without deletion than the black subjects. Put another way, 44% of the VC units produced by the black sample had deletions, but only 37% of the white sample's units had deletions.

- - - - - - - - - - - - -

Insert Table 21 about here

- - - - - - - - - - - - -

Table 20

Mean Frequency of Constituent NP Functions

Function	Black Ss	White Ss
Subject (1)	89.0	98.6
Direct Object (2)	65.8	62.6
Indirect Object (3)	1.5	2.0
Subject or Object Complement (4)	24.9	22.9
Direct Object in Truncated Passive (8)	.3	.6
Vocative (9)	.3	.0

Table 21

Mean Frequency of Types of Deletion in VC Units

Type of Deletion	Black Ss	White Ss
No Deletion (0)	79.8	86.2
Obligatory (1)	8.4	5.0
Optional: Subject or Part of Predicate (2)	5.2	4.2
Optional: Understood Words in Answer to Question (3)	38.3	35.7
Optional: Subject of Imperative or Elliptical Question (4)	2.4	1.7
Copula (5)	5.6	2.1
Optional: Clarification Question (6)	.8	.5
Other Optional (7)	.7	1.0
Agent of Truncated Passive (8)	.9	1.2
Other Nonstandard (9)	1.7	1.0

The group difference in total deletions would appear to have resulted largely from three types of deletions. First, there was a predictable difference in the deletion of copular verbs (5). This type of deletion is a feature of Black English dialect and has no inherent connection with syntactic elaboration. (The non-zero mean for copula deletions among white subjects indicates that factors other than dialect, e.g. linguistic immaturity, may be associated with the deletion of copulas. However, it seems likely that dialect accounts for the group difference on this feature.

Another variable separating the two samples was the frequency of obligatory deletions (1). It has already been suggested that the greater frequency of catenative verb patterns for the black sample would entail a concomitant difference in obligatory deletions. The data in Table 21 confirm that expectation.

The third major source of the overall deletion difference was the frequency with which understood words were deleted from immediate answers to questions (code 3). The data on VC environments (Table 14) indicated nearly identical group means for the number of VC units which occurred immediately after a question, request, or command. Thus it would appear that the number of opportunities to delete understood words was about the same for both groups, and that the black children exercised this option more often than the white children. Furthermore, it seems quite likely that the deleted words would often be the subject of a sentence spoken in response to a question. If this line of reasoning is correct, it provides some additional support for the suggestion that the black sample had a lower frequency of subject NPs because of deletion.

The present data might reflect a stylistic preference on the part of the white children to answer questions with complete sentences. It is not clear whether such a style difference has anything to do with the extent to which the speaker is using an "elaborated code." Understood words can often be deleted from answers to questions simply because they are excess baggage; their inclusion in the response might even reduce the efficiency of communication. On the other hand, the utterance of understood words might sometimes aid communication by reducing ambiguity. In this case, there would be a connection with elaborated code use, because the extra words would make the speaker's meaning more explicit. It remains for future analyses to determine whether or not the deletion of understood words in answers to questions is a reliable discriminator between black and white children and, if so, whether or not this difference affects the functional explicitness of communication.

Statistical Tests and Summary of Results

Up to this point, the lower-class black and middle-class white samples have been compared in a purely descriptive fashion. In general, the two groups of children produced very similar frequencies on the various measures which have been examined, but there were also some differences of possible importance between them. The present section deals with the statistical significance of those differences which are most germane to the claim that lower-class black children elaborate their speech less than middle-class white children. The question is whether or not the observed sample differences reflect true differences between the populations from which the samples were drawn.

This phase of the analysis began with the identification of a set of variables which met three criteria. (1) The set would include only variables with face validity as measures of syntactic elaboration; (2) the variables would refer to syntactic forms which occurred with sufficient frequency in the present data to be worth analyzing; and (3) the set would not include variables which were obviously redundant with each other. On the basis of these criteria, the following set of variables was selected:

Verbal phrases--the sum of frequencies for participial and infinitive phrases acting as adjectives and adverbs (VC functions 9 and 0);

Adverbial clauses (VC function 1);

Relative clauses (VC function 2);

Other determiners--all NP determiners except articles (NP slot N-5);

Numerals (NP slot N-4);

Attributive adjectives (NP slot N-2);

Noun modifiers of head nouns (NP slot N-1);

Post-head descriptive phrases (NP slot N+1);

Prepositional phrases modifying verbs (prepositional phrase function 7).

Another variable, NP slot N+4, met the criteria of face validity and sufficient frequency, but it also was highly redundant with verbal phrases and relative clauses, and therefore was not included.

It will be recalled that the black children had slightly higher means for total VC units and total noun phrases (see Tables 4 and 8). Although these sample differences are not statistically significant, it seemed desirable to take them into account when testing the group differences in elaboration. Otherwise, it might be argued that apparent differences on elaboration variables (or the lack thereof) were actually due to overall differences in the volume of speech produced. Consequently each of the nine variables listed above was converted from a raw frequency to a percentage, the baselines for these percentages being the total number of VC units for the first three variables and the total number of NPs for the remaining variables. The mean percentages for the two samples are displayed in Table 22.

Insert Table 22 about here

In order to test the significance of group differences in elaboration, the nine elaboration percentages were divided into three subsets, as shown in Table 22. Each subset was then tested separately, using Dunn's procedure for multiple comparisons where more than one dependent variable was involved (see Kirk, 1968). This strategy permitted tests on a large number of variables while maintaining some control over the rate of Type I errors. As indicated in Table 22, only three of the contrasts were significant: the white subjects produced higher percentages of adverbial clauses and relative clauses, and the black subjects had more prepositional phrases modifying verbs.

As an aid to interpreting these results, several other coding features were subjected to the same kind of analysis, except that the dependent variables were raw frequencies rather than percentages. With regard to parts of the interview, the frequencies of VC units in the warmup portion and in the picture portion as a whole were treated as the dependent variables (see Table 13). Neither contrast between groups was significant. In another analysis, Dunn tests were made on the frequencies for two types of VC environment--immediate responses to questions (B) and "continuations" (D+F+L). Neither difference was significant (see Table 14). Group differences on the major VC patterns were also tested. This analysis included patterns A, B+H+I, D, J, Q, and S (see Table 16). None of the differences was significant. In yet another analysis, group differences were tested on several head noun types, including types A, B, C, D, H, and I+M (see Table 19). Again, no differences were significant. Finally, the four VC expansion-deletion codes were tested and one significant group difference was found, on code 4; the black subjects produced significantly more VC units with both expansion and deletion (see Table 4).

Table 22

Mean Percentages on Selected Elaboration Variables

Variable	Black Ss	White Ss
Elaborative VC Units:		
% Verbal Phrase	1.5	1.6
% Adverbial Clause	3.2	5.1**
% Relative Clause	.9	1.6*
Elaborative Noun Phrases:		
% Prepositional Phrases Modifying Verbs	9.6*	8.0
Elaboration within Noun Phrases:		
% Other Determiners (N-5)	11.7	9.6
% Numerals (N-4)	1.9	2.5
% Attributive Adjectives (N-2)	3.9	3.7
% Noun Modifiers (N-1)	1.4	1.7
% Descriptive Phrase (N+2)	1.4	1.3

* $p < .05$

** $p < .01$

Further Discussion

In the statistical analyses summarized above, three elaboration measures were found to distinguish reliably between lower-class black and middle-class white children. One of these measures was the percentage of verb-complement units functioning as dependent adverbial clauses. The finding of a difference on this measure in favor of middle-class white children is consonant with the assumption that lower-class black children produce less elaborated speech. However, as noted earlier, the difference in adverbial clauses is attributable to just one kind of clause, namely clauses introduced by the conjunction because (see Table 18). Thus it is not at all clear that the two populations actually differ with regard to the use of adverbial clauses in general.

A second significant difference was the black sample's more frequent use of prepositional phrases to modify verbs. It was suggested earlier that this difference may have resulted from a parallel difference in the occurrence of VC pattern A--particularly instances of this pattern containing motion verbs such as go. The group difference on pattern A was not, itself, significant according to the present analysis, but it still may have influenced the results for prepositional phrases. Thus it is not clear that black children use more prepositional phrases to modify verbs in general, but it is clear that the group difference on this variable does not support the notion of an elaboration deficit in young black children.

The third significant difference was the higher percentage of relative clauses produced by the white subjects. This difference is consistent with the elaboration deficit hypothesis and it does not involve any obvious complications of the sort which have just been discussed with regard to the other two significant differences. However, it seems like a very small piece of evidence on which to rest the case for a deficiency of syntactic elaboration in the speech of lower-class black children at the preschool level. The weight of the present evidence suggests that there are only negligible differences between the two populations in question on the kind of syntactic measures which have been analyzed.

A question of interest at this point is why the present data offer so little support for the conclusions of other researchers who have conducted similar investigations of population differences in the syntactic properties of child speech (e.g. Loban, 1963; Williams & Naremore, 1969b). It would be difficult to attribute the discrepancy in results to differences in the situations in which the data were collected. The interviews used in all of the studies were actually quite similar. A second explanation has to do with the social-class background of the subjects who were tested. Specifically, it might be argued that the present samples were drawn from different populations than the samples used in previous studies. While this is certainly true in some ways, there is also evidence that the present study did

provide the essential contrast between lower and middle-class children. On the Peabody Picture Vocabulary Test, the black subjects had a mean IQ score of 79, and the white subjects had a mean of 111. A difference of this magnitude is quite consistent with other comparisons of the target populations. (The validity of Peabody IQ scores as measures of ability in minority children is, of course, open to question, but that is not the issue here.)

Other studies have focused on children somewhat older than the preschoolers who were subjects in the present study. Perhaps the alleged population differences in syntactic elaboration do not emerge until later in childhood. This hypothesis is still tenable and it cannot be tested with data currently available. It is important to note, however, that many authors have extrapolated from the data on older children in assuming important elaboration differences in early childhood. The present results indicate that such extrapolation may be misleading.

Finally, a finding in the present study suggests that, even among older children, social-class differences in syntactic elaboration may be more apparent than real. The black subjects were found to produce more VC units with deletions. Moreover, the types of deletion which distinguished between the two groups have little or no relationship to syntactic elaboration per se (see Table 21). It is possible that such deletions were confounded with the measures of syntactic elaboration used in previous studies.

Effects of Training in Sentence Construction and Vocabulary

The analysis reported in this section parallels the earlier analyses of vocabulary and sentence imitation data from the same subjects by Ammon & Ammon (1971). The three training groups were compared with regard to selected syntactic variables from the posttest Picture Interview. The group expected to show the greatest effect of training on syntactic elaboration was, of course, the group trained in sentence construction. However, previous analyses had shown positive effects of vocabulary training, but no effect of sentence training. Therefore it seemed desirable in the present analysis to compare both experimental groups to the control group and to each other. Consequently Dunn's test was again used in making three pair-wise contrasts on each dependent variable, instead of the two planned comparisons used earlier by Ammon and Ammon.

The variables selected for this analysis were those most likely to manifest any direct effects of sentence training. That is, the selected variables included the types of elaboration which the sentence group was trained to produce. The five variables selected on this basis were adverbial clauses, relative clauses, other determiners, attributive adjectives, and prepositional phrases modifying verbs. Raw frequencies were again converted to percentages, as there were

substantial (but not statistically significant) differences between groups in the total production of VC units and noun phrases. The group means for each percentage, as well as total VC units and NPs, are shown in Table 23.

- - - - - - - - - - - - -

Insert Table 23 about here

- - - - - - - - - - - - -

None of the group differences in Table 23 are statistically significant. Thus there is no evidence that either type of training--sentence construction or vocabulary--changed the syntactic properties of child speech in the Picture Interview. There results are consistent with those reported earlier for data from the Sentence Imitation Test.

The Validity of Sentence Imitation as a Language Assessment Tool

The purpose of the following set of analyses was to determine the relationship between syntactic elaboration in the Picture Interview and performance on the Sentence Imitation Test, within the lower-class black sample. The interview variables chosen for this analysis were the same five percentages used in the preceding analysis of training effects, along with total VC units and total noun phrases (see Table 23). In this case, however, data from the pre- and posttests were combined and the percentages recalculated for the combined data. This procedure seemed desirable because, during the analysis of training effects, it was found that the test-retest correlations on individual percentage variables were not very high--ranging from .18 to .40. Thus it was hoped that the combined data would provide a more reliable estimate of each child's facility with syntax. Given the absence of any significant training effects, it seemed permissable to use this procedure as a way of increasing reliability.

The seven combined interview measures were entered in a multiple regression analysis in which the "dependent" variable was the number of "essentially correct" items on the Sentence Imitation Test. The multiple correlation coefficient (R) in this analysis was .517, which is significantly different from zero, $F(7,60)=3.133$, $p < .01$. A similar analysis was performed with an alternate score from the imitation test, the number of "clearly wrong" responses. In this case, R=.461, which is also significant ($F=2.308$, $p < .05$). Post hoc tests were done on the individual regression coefficients in each of these analyses, with no significant results. Thus the significant relationship between interview and imitation test cannot be attributed to particular interview variables.

The finding of a significant relationship between interview speech and performance on the imitation test suggests that the present imitation test has some validity as a measure of facility with syntax. But it also necessary to see how the analyses reported above compare to a third

Table 23

Training Group Means on Selected
Dependent Variables from the Posttest

Dependent Variable	Sentence (N = 22)	Vocabulary (N = 23)	Control (N = 23)
% Adverbial Clauses	3.2	4.5	5.2
% Relative Clauses	1.5	1.4	1.3
% Other Determiners	12.9	13.2	13.4
% Attributive Adjectives	3.5	3.7	2.5
% Prepositional Phrases Modifying Verbs	9.6	9.7	11.6
Total VC Units	141.7	165.2	166.0
Total Noun Phrases	218.73	250.5	240.9

analysis, in which the dependent variable is a mental age (MA) score from the Peabody Picture Vocabulary Test (Form B). In this analysis, R=.484 ($F=2.623$, $p < .05$). Clearly these results offer no basis on which to claim that the Senteence Imitation Test is a better measure of syntactic elaboration than the Peabody MA.

It is conceivable that the two tests--imitation and vocabulary--make equally good predictions of interview speech for different reasons. Certainly the correlations of .45 and -.49 between Peabody MA and the two imitation scores suggest that they do not measure exactly the same thing. However, the pattern of regression coefficients was generally quite similar in all three of the regression analyses, so it does not appear that vocabulary and imitation were related to very different aspects of interview speech.

Predicting Early Reading Achievement from Preschool Language Data

The final set of analyses parallels those reported in the preceding section, except that the dependent variable was the raw score on the Cooperative Primary Reading Test (Form 23A), administered at the end of second grade. Reading scores were available for 54 of the original subjects in the black sample. In a multiple regression analysis, the five predictors were the percentage elaboration variables used in the preceding analysis. (The totals for VC units and NPs were dropped from this analysis to reduce the number of variables in accordance with the smaller sample size.) The multiple correlation between these predictors and reading achievement was .454, which is statistically significant, $F(5,48)=2.487$, $p < .05$. Post hoc tests on the five individual regression coefficients were not significant.

Although it is not possible to attribute the above correlation to particular elaboration variables, the fact that there was any significant relationship is interesting, considering that the achievement data were collected more than three years after the interview data. During this period there undoubtedly was much variation in the quality of instruction and other relevant experience. Furthermore, there is some reason to believe that the reading data are not as reliable as they might have been. For one thing, the test was administered by several different teachers. In addition, the sample's mean raw score of 25.8 correspnds to a percentile rank of 44 and a grade equivalent of 2.6. This level of performance is high relative to other data from the same school district and suggests a certain amount of teaching to the test, due perhaps to the recent emphasis on the accountability of teachers. In any case, it is possible that future studied, with larger samples, and with better controlled reading data, will establish more precise relationships between early syntactic elaboration and reading achievement.

For the sake of comparison with the above results, a bivariate correlation was computed between reading scores and the "essentially

correct" scores from the Sentence Imitation Test. The coefficient of this correlation was .30, which is significant ($p < .05$). On the other hand, reading scores only correlated .05 with Peabody MA, and this correlation is not significant. Here, then, is some evidence that the vocabulary and sentence imitation tests do measure different aspects of language ability.

CONCLUSIONS

Any conclusions to be drawn from the data analyzed in the present study must be considered in relation to the instrument by which the speech data were collected, the Picture Interview. Within this limitation, however, the results have some important implications.

In the comparison of interview speech produced by lower-class black and middle-class white children, similarities far outweighed differences. There was no general tendency for the white children to produce more elaborated speech than the black children, contrary to a common assumption about deficits in the language development of young, lower-class black children. As suggested earlier, it is possible that "deficits" in syntactic elaboration do not emerge until after these children begin their formal schooling. Alternatively, the apparent deficits found previously in older children may simply have been artifacts of the procedures used to measure elaboration. In either case, the implication is that teachers of young, lower-class black children need not be alarmed about their ability or propensity to produce elaborated sentence constructions. On the other hand, it cannot be determined from the present data whether or not the black and white samples differed with respect to the accuracy or appropriateness of the elaborations which they produced. The semantic and pragmatic aspects of elaboration deserve further investigation.

It was found that special training of the lower-class black children in sentence construction or in vocabulary had no significant effect on their syntactic elaboration in the Picture Interview. This finding is consistent with the similarly negative results obtained on the Sentence Imitation Test (Ammon & Ammon, 1971). In contrast, the same sample of children showed positive effects of vocabulary training on recognition and production of the items they were taught. Ammon and Ammon suggested several possible reasons for the ineffectiveness of their sentence training, one of these being that the children were already progressing at a normal rate in the development of syntactic knowledge and skills. The results of the comparison between black and white samples in the present study lends further credence to this explanation.

The data from the Picture Interview did not confirm the expectation that responses to the Sentence Imitation Test would predict syntactic elaboration more accurately than responses to the Peabody Picture Vocabulary Test. Both tests had significant correlations, of essentially the same magnitude, with interview speech. It cannot be concluded that the imitation and vocabulary tests measure the same general language ability; their intercorrelations indicate a considerable lack of overlap, even with correction for unreliability. But, evidently, the present body of speech data does not constitute a good criterion for establishing differences in what the two kinds of test measure.

Both syntactic elaboration and sentence imitation, at the preschool level, were found to predict a significant proportion of variance in second grade reading achievement. In contrast, there was no significant relationship between reading and earlier performance on the Peabody Picture Vocabulary Test. It seems reasonable to conclude that imitation and elaboration data will prove useful in determining reading readiness, but it remains for future research to identify these relationships more precisely.

REFERENCES

Ammon, P. R. Toward a study of sentence imitation as a technique for assessing language ability. In W. D. Rohwer and P. R. Ammon, The assessment and improvement of learning and language skills in four and five year old culturally disadvantaged children. Final Report, U.S. Office of Economic Opportunity, Contract No. B99-4776, 1971.

Ammon, P. R., & Ammon. M. S. Effects of training black preschool children in vocabulary vs. sentence construction. Journal of Educational Psychology, 1971, 62, 421-426.

Baratz, J. C., & Shuy, R. W. (Eds.). Teaching Black children to read. Washington, D.C.: Center for Applied Linguistics, 1969.

Bernstein, B. Elaborated and restricted codes: Their social origins and some consequences. In J. J. Gumperz and D. Hymes (Eds.), The ethnography of communication. American Anthropologist, 1964, 66, Part 2, 55-69.

Bernstein, B. A sociolinguistic approach to socialization: With some reference to educability. In F. Williams (Ed.), Language and poverty, Chicago: Markham, 1970.

Bever, T., & Langendoen, T. A dynamic model of the evolution of language. Linguistic Inquiry, 1971, 2, 433-463.

Cazden, C. B. Environmental assistance to the child's acquisition of grammar. Unpublished doctoral dissertation, Harvard University, 1965.

Dickie, J. P. Effectiveness of structured and unstructured (traditional) methods of language training. In M. A. Brottman (Ed.), Language remediation for the disadvantaged preschool child. Monographs of the Society for Research in Child Development, Serial No. 124, 1968, 33, No. 8.

Dillard, J. L. Black English, 1971.

Dunn, L. M. Expanded manual for the Peabody Picture Vocabulary Test. Minneapolis: American Guidance Service, 1965.

Educational Testing Service. Manual for the Cooperative Primary Tests, 1967.

Fraser, C., Bellugi, U., & Brown, R. Control of grammar in imitation, comprehension, and production. Journal of Verbal Learning and Verbal Behavior, 1963, 2, 121-135.

Gleason, H. A. Linguistics and English grammar. New York: Holt, Rinehart and Winston, 1965.

Hess, R. D., & Shipman, V. C. Early experience and the socialization of cognitive modes in children. Child Development, 1965, 36, 869-886.

Kirk, R. E. Experimental design: Procedures for the behavioral sciences. Belmont, Calif.: Brooks/Cole, 1968.

Labov, W. The logic of nonstandard English. In F. Williams (Ed.), Language and poverty. Chicago: Makrkham, 1970.

Lee, L. Northwestern Syntax Screening Test. Evanston, Ill.: Northwestern University, 1969.

Loban, W. The language of elementary school children (Research Report No. 1). Champaign, Illinois: National Council of Teachers of English, 1963.

Loban, W. Language ability: Grades ten, eleven, and twelve. Final Report, Project No. 2387, U. S. Office of Education, Bureau of Research, 1967.

Osborn, J. Teaching a teaching language to disadvantaged children. In M. A. Brottman (Ed.), Language remediation for the disadvantaged preschool child. Monographs of the Society for Research in Child Development, Serial No. 124, 1968, 33, No. 8.

Osser, H., Wang, M. D., & Zaid, F. The young child's ability to imitate and comprehend speech: A comparison of two sub-cultural groups. Child Development, 1969, 40, 1063-1076.

Rosenberg, S. Problems of language development in the retarded: A discussion of Olson's review. Paper prepared for the Peabody-NIMH Conference on Social-Cultural Aspects of Mental Retardation, Nashville, Tennessee, June, 1968.

Ruddell, R. B. Language acquisition and the reading process. In H. Singer and R. B. Ruddell (Eds.), Theoretical models and processes of reading, Newark, Del.: International Reading Association, 1970.

Shuy, R. W. Whatever happened to the way kids talk? National Conference on the Language Arts, April, 1969.

Shuy, R. W., Wolfram, W. A., & Riley, W. K. Linguistic correlates of social stratification in Detroit speech. Final Report, Cooperative Research Project 6-1347, U. S. Office of Education, 1967.

Slobin, D. I. (Ed.). A field manual for cross-cultural study of the acquisition of communicative competence. Berkeley: University of California, 1967.

Slobin, D. I., & Welsh, C. A. Elicited imitations as a research tool in developmental psycholinguistics. Working Paper No. 10, Language-Behavior Research Laboratory, University of California, Berkeley, 1968.

Williams, F., & Naremore, R. C. On the functional analysis of social class differences in modes of speech. Speech Monographs, 1969, 36, 77-102. (a)

Williams, F., & Naremore, R. C. Social class differences in children's syntactic performance: A quantitative analysis of field study data. Journal of Speech and Hearing Research, 1969, 12, 778-793. (b)

Legum, S. E., Williams, C. E., & Lee, M. T. Social dialects and their implications for beginning reading instruction. Inglewood, California: Southwest Laboratory for Educational Research and Development, 1969.

Appendix A

Excerpt from a Picture Interview Transcript

Um hm. That sounds like a really exciting show. That was Dark Shadows you said? *What show do you like best on television?

I like * Flintstones * and I like * Lassie * and I like that boy on Lassie and [I]* that lady * .

[That girl puts that * she]* first she make that jelly.

she stick it in her daddy's pocket.

Then that man hang his coat up.

Then she wrap [his * she wrap] her jelly in there.

Oh why does she do that?

I don't know.

Oh * what happened?

Then that man will lick her for it.

Then that girl say "I-m going, Mommy."

She went with that daddy.

Um. Good.

He was licking at it.

Yeah. That's a funny one isn't it? Yeah. * Have you ever been sick Darlene?

Yeah.

You have? What was that? Can you tell me about it?

Yesterday I wasn-t coming to school 'cause it was raining so hard.

And then [I had] * I was going to get a cold again.

Appendix B

Instructions for Transcribing from Tapes

I. Procedure

A. Use yellow paper for rough draft and white paper for final copy.
B. Listen to the tape recording once completely, typing rough draft for general idea of transcript.
C. Listen to the tape as many times as necessary, writing in additions and corrections with black pencil.
D. Type final draft.
E. Double-check transcript by listening to the tape on a different day.
F. When the child's speech seems especially clear, type a final copy of transcript only and write in additions and corrections with black pencil.

II. Margins

A. Use wide margins as follows:
2 inches from top on first page, 1-1/2 inches from bottom;
1-1/2 inches from top and bottom of remaining pages;
left margin - 20
right margin - 65
B. Indent responses of S five spaces

III. Headings

A. Head the first page of a transcript as follows:
last name of S, first name
side number of tape, counter number
school
date
last name of E
B. Head remaining pages as follows:
page number, centered
last name of S, first name
counter number
C. Leave 4 spaces before each picture is introduced and indicate picture number in parentheses as E introduces each picture.
Example: (picture 1)

IV. Spacing

A. Single space remarks by E.
B. Double space remarks by S.

V. Punctuation

A. Do not use commas, colons, semi-colons, or dashes within an utterance.
B. Use question marks where appropriate at the end of an utterance.
C. Enclose in parentheses all comments of the transcriber, alternate interpretations, etc.
D. Indicate pauses by one asterisk for a short pause and two asterisks for a long pause.

E. Do not break up words at the end of a line.
F. Use question mark within parentheses to indicate uncertainty about interpretation of a word or phrase.
G. Capitalize the first letter of the first word of all responses by S. Use a period after every response by S.

V. Spelling

A. Use standard way of spelling consonant sounds.
B. Use standard way of spelling vowel sounds--unless you can't tell what the word is.
C. Indicate phonemic spelling with slashes when the sounds are clear even though the word(s) cannot be determined.

Vowels:

a	father
ae	bat
aw	hawk
ey	bait
iy	feet
i	bit
ay	bite
oh	boat
oo	boot
oi	oil
ou	bou.
uh	butter

D. Spell contractions in the standard way when they occur. But in those ambiguous cases which might be either a contraction or a plural noun, use -s, as in boy-s.
E. Write "because," not "'cause," and "going to," not "gonna." Spell out in standard way most deletions and slurrings. Spell out stutter sounds of a word only if clear.
Example: Fi-five.

VI. Miscellaneous

A. Write "interrupted by...") in parentheses to indicate interruptions by S or E or other.
B. When uncertain about a word or words, use a question mark in parentheses, followed by x's to indicate the number of syllables that cannot be determined, and give the number of unknown syllables.
Example: (? xx 2 syllables)
C. For picture interview, put tape recorder counter number at the beginning of each page of transcript. For sentence imitation, put counter number every five sentences.

Appendix C

Picture Interview Coding Manual

Mary Sue Ammon, Judith O. Harker, and Paul R. Ammon
University of California, Berkeley

PICTURE INTERVIEW CODING MANUAL

PART I: VERB-COMPLEMENT UNITS

Table of Contents

Column	Scoring Code	Description	Manual Page Number
	Symbols		1
	Interpreting transcripts		1
	1. Incomplete word of one or more letters		1
	2. All "ah," "um," "er," and other variations on these		1
	3. False starts		1
	4. Corrections		2
	5. Repetitions		2
	6. Uninterpretable utterances		2
	Some definitions		2
	1. Complement		2
	2. Verb-Complement Unit		3
	3. Sentence		4
	4. Modals		6
	Numbering Units		7
1-3	001 through n	Verb-Complement unit number in transcript.	7
4-6	001 through n	Sentence number in transcript	7
9	Verb-Complement patterns		9
	A = S Vi		9
	B = S Vl $SComp^{adj}_{noun}$		10
	C = S Vl $SComp^{noun}$		11
	D = S Vt DO		11
	E = S Vt IO DO		13
	F = S Vt DO $OComp^{adj\ or\ noun}_{noun\ only}$		13
	G = S Vt DO $OComp^{noun\ only}$		14
	H = S Vc $SComp^{adv}_{adj}$		15
	I = S Vc $SComp^{adj}$		16
	J = S Vt DO - no passive form		17
	K = S Vt DO (measure)		17
	L = S Vt (IO) Comp		17
	M = S Vt DO DO		18
	N = S Vt DO - inseparable verb-preposition		19
	Ø = S Vt DO - verb-particle (separable)		20
	P = S $V_{(put)}$ DO loc		20
	Q = S $V_{(catenative)}$ (IO) Verbal Complement		21

Column	Scoring Code	Description	Manual Page Number
		Problem constructions with the catenative verbs	22
	R = cannot determine pattern		24
	S = S Vc $SComp^{noun}$		24
		Problems with participles	24
		A. Participial adjectives vs. passives	24
		B. When and when not to code participles separately	26
		C. Participles following have or get	27
11	Expansion-Deletion		30
	1 = minimum form		30
	2 = minimum form + expansions		30
	3 = deletion in the pattern described		32
	4 = deletions + expansions		33
		More information on expansions and deletions	33
12-13	Type of deletion		36
	0 (zero) = no deletion was made		36
	1 = obligatory deletion (catenatives; participial, gerundive, and inf. phrases; "verb appositives")		36
	2 = optional deletion of subject or part of predicate (compounds, correlative clauses, and anaphora)		38
	3 = optional deletion of understood words in answering wh-questions		40
	4 = optional deletion of subject with imperative or elliptical questions		40
	5 = copula deletion		40
	6 = optional deletion (question clarification question or imperative)		41
	7 = other optional deletions		41
	8 = agent deletion in truncated passive		42
	9 = other nonstandard deletions		42
		Problem cases: double deletions	43
14	Function of verb		44
	1 = verbal element in dependent adverbial clause		44

Column	Scoring Code	*Description*	Manual *Page Number*
	2 = verbal element in relative clause		45
	3 = verb in parenthetical clause		46
	4 = main verb in sentence		46
	5 = verbal element in subject constituent		47
	6 = verbal element in complement constituent		47
	7 = verbal element in clauses modifying adjectives		48
	8 = verbal element in phrase or clause acting as object of a preposition		48
	9 = verbal element in participial or infinitive adjective phrase		49
14	0 (zero) = verbal element in participial or infinitive adverbial phrase		49
	A = verbal element in "verb appositive"		50
16	Introducer (if applicable)		51
	0 (zero) = does not apply		51
		a) Adverbial clause	52
	A = because	F = before	K = until
	B = for	G = after	M = unless
	C = if	H = like	N = although, though
	D = while	I = so, so that	S = in order that
	E = when	J = where	
		b) Relative clauses	52
	A = who	D = what	H = when
	B = that	F = like	I = why
	C = which	G = where	
		c) Adjective modifying clauses	52
	A = that	B = that	C = as
		d) All subject or object constituent clauses and all verbal phrases	52
	A = wh-word	M = because	
	B = that	N = for . . . to	
	C = to	Q = wh-word + to	
	D = -ing	S = for	
	E = "quotes"	U = to + ing	
	F = -en	V = for to (dialect introducer)	
	G = possessive	W = adverb introducing clause/phrase acting as constituent or obj. of prep.	
	J = if		
	L = like	Y = auxiliary reversal in indirect yes/no questions (Do you mean <u>did I</u> see it?)	

Column	Scoring Code	Description	Manual Page Number
		Number codes for introducers which have been deleted	53
		1 = obligatory deletion of introducer with some catenative verbs	
		2 = optional deletion of introducer because of compound dependent structures	
		3 = optional deletion of introducer due to answer to a question	
		5 = optional deletion of introducer for clauses	
		6 = no introducer because of question asking clarification	
		7 = optional deletion of introducer for dependent phrases	
		9 = nonstandard introducer deletion	
17		Coordination	54
		0 (zero) = not coordinated; 1 = 1st or 2 or more; 2 = 2nd of 2; 3 = 3rd of 3, etc.	
		Related environment coding notes for dependent V-C units	55
		Modification	56
		a) Specific thing modified	56
		0 (zero) = unit being coded in a constituent, a parenthetical unit, or a verb appositive	56
		1 = modifies adverb	56
		2 = modifies noun whose function can't be determined	56
		4 = modifies verb	57
		5 = modifies subject	57
		6 = modifies a noun or adjective complement, or a direct object	58
		7 = modifies the whole sentence	58
		8 = modifies adjective (that is not a complement)	58
		9 = modifies object of a preposition	58
		A = modifies noun in adverbial noun phrase	59
20		b) Function of larger unit that contains the V-C unit being coded	59
		0 (zero) = does not apply	59
		1 = modifies, or is constituent of whole main V-C unit; or modifies simple constituent or simple modifier in the main verb unit	59
		2 = modifies or is constituent of adverbial clause	60
		3 = modifies or is constituent of relative clause	61

Column	Scoring Code	Description	Manual Page Number
	5 =	modifies or is constituent of V-C unit acting as subject	61
	6 =	modifies or is constituent of V-C unit acting as complement or DO	62
	7 =	modifies or is constituent of adjective clause or adjective phrase	62
	8 =	modifies or is constituent of V-C unit acting as object of a preposition	63
	9 =	modifies or is constituent of V-C unit acting as adverbial phrase	63
21		Environment	64
	A =	exact of nearly exact repetition of an earlier comment	64
	B =	1st clause in response to question, request or command from interviewer	64
	C =	1st clause following a content statement by interviewer	64
	D =	1st clause in response to a non-directive prompt	65
	E =	1st clause initiated by the child	65
	F =	non-initial - main clause following and	66
	G =	non-initial - dependent clause or phrase following and	66
	H =	non-initial - main clause following but	66
	I =	non-initial - dependent clause (or phrase) following but	67
	J =	non-initial - main clause following or	67
	K =	non-initial - dependent clause or phrase following or	67
	L =	non-initial - first clause in new sentence following another sentence unit	67a
	M =	non-initial - main clause after dependent clause, phrase, constituent, or parenthetical unit	68
	N =	non-initial - dependent clause (or phrase) following a dependent clause (or phrase) and modifying something	68
	Ø =	not initial - dependent clause or phrase (or parenthetical unit) following a dependent clause (or phrase or parenthetical unit) and acting as a constituent	69
	P =	not initial - dependent phrase or clause following the main verb unit, and modifying an element in the sentence	69
	Q =	not initial - dependent clause (or phrase or parenthetical unit) following the main verb unit, and acting as a constituent	69
	R =	not initial - child answers his own question	70
	S =	not initial - dependent clause, phrase, or constituent introducing another main verb unit connected to the previous one by and, but, or	70

Column	Scoring Code	Description	Manual Page Number
23	Negation		70
	1 = negative form is used 2 = multiple negations are used		
24	Attachment (to unit with which it belongs)		71
	1 = yes, it is attached 2 = no, it is unattached 3 = no, it is unattached because interviewer requested part to be repeated		
26	Part of interview		72
	0 = warmup questions 1 = 1st picture 2 = 2nd picture	3 = 3rd picture 4 = 4th picture 5 = 5th picture 6 = 6th picture	
28	Stereotyped response		72
	1 = yes (response is "I don't know," "That's all," "Nothing.") 0 = no, not sterotyped		
29	Interpolated material		73
	0 (zero) = does not apply, is not interpolated 1 = yes, material is interpolated		
31-37	Structural description		73
31	Imperative		73
	1 = present	blank = is not present	
32	Questions		74
	blank = not a question 1 = tag question	2 = yes/no question 3 = wh-question	
33	Subjunctive - "let"		75
	1 = present	blank = is not present	
34	Presentative		76
	1 = present	blank = is not present	

Column	Scoring Code	Description	Manual Page Number
35		Passive	77
	1 = present	blank = is not present	
36		Inversion with expletive	77
	1 = present	blank = not present	
68	Identification data		79
	1 = pretest		
	2 = posttest		
70		Age/SES/City	80
	1 = Richmond		
	2 = Berkeley		
	3 = Moraga		
72		Treatment	80
	1 = sentence		
	2 = vocabulary		
	3 = control		
74-76		IBM card number	80
	004 through n; number cards consecutively		
78-80		Subject ID Number	80
	Three-digit number on transcript		

PICTURE INTERVIEW CODING-MANUAL

PART I: VERB-COMPLEMENT UNITS

I. SYMBOLS

S - subject
Vi = intransitive verb
Vl = linking verb
Vt = transitive verb
Vc = copular verb (to be)
DO = direct object
IO = indirect object
OComp = object complement
SComp = subject complement
VComp = verbal complement
adv = adverb
adj = adjective
( ) = optional element

II. INTERPRETING TRANSCRIPTS

* - indicates pause
** - indicates long pause
/.../ - indicates phonetic transcription (usually for uninterpretable words, phonemic substitution & omission.)
[ ] - indicates mazes

Mazes include material which is not coded or counted, such as:

1. Incomplete word of one or more letters, (except for phonetic false starts, which were usually ignored in the transcription - th-that, b-but, etc.)

   [tha*] [bo*] [wh - b - thi*]

2. All "ah", "er", and other variations on these:

   [um] [uh] [uh * um **]

   But things very close to these are words, and not included in maze brackets:

   uh uh = no un huh = yes huh? = what? uh-u-uh - I don't know

   The above "words" will be included in the word counts but not coded in the V-C analysis.

3. False starts: [they * they*] they fix everything.

   [* um * we *] we eat breakfast.

   [My * the * th-] the car didn't start.

   [They don't have sh-] they don't have no shoes on.

4. Corrections: [My*] The baby did.

[A horse * the horse * the boy] the boy say "There."

[Then they say] then he say "I'm afraid."

But "I mean" is coded:

One of them name Patrick, I mean the baby name is Patrick.
(no mazes)

5. Repetitions: And [* and and * then we] then we go over there.

[I like *] I like something else.

[Then the dog g-*] then the dog wants to drink

[I'm getting into] I'm getting into daddy's car.

But note that intensifiers and compound structures are not mazes:

It a big big dog.

I like these and these and these.

I want this and that and that one there.

6. Uninterpretable utterances:

[x x (?)]

A man [/ri/] is in the boat.

Some of these statements are in plain (rather than red) pencil brackest; usually for words or phrases that would not have interfered with coding. Also pencilled-in comments, alternative second (or 3rd or 4th) guesses as to what was said. These are usually included within parentheses, sometimes with question marks. These should be coded if an interpretation can be agreed upon. Otherwise, they have to be treated as mazes, and left out of the coding.

The interviewer's remarks are at the left margin. The child's speech is indented 5 spaces. We code only the child's speech.

III. SOME DEFINITIONS

1. Complement: A complement is any word or group of words that completes the meaning of some other word or words. Usually, the term is used for any part of the predicate that completes

the meaning of the verb, or of the subject. It thus includes a wide variety of constructions: objects, adjectives, adverbs, predicate nominatives, etc. These may be single words, phrases or clauses.

Complements of the subject:

The weather was stormy.

He is an idiot.

His orders were to report at midnight.

The well ran dry.

Complements of the object:

We found it hard to believe.

They named the baby Sam.

We painted the town red.

They elected him president.

Complements of the verb:

The donkey came slowly.

The baby bear said, "I'm helping."

He taught them to write.

2. Verb-Complement Unit: This is a verb plus all its complements (including subject of object complements, too). Each principle verb is coded as a verb-complement unit. Auxiliary verbs, however, are NOT CODED.

One unit per sentence:

They climbed down the tree.
V compl.

That's all.
V compl.

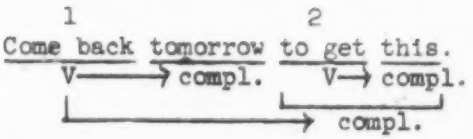
I'll be playing.
V (no compl.)

I'm going home.
V compl.

Two units per sentence:

1 2
I like to watch Lassie.
V V → compl.
↳ compl.

1 2
He see me when he look down.
V→ compl. V compl.
↳ compl.



3. Sentence: A unit of speech (or writing) containing at least one main (unsubordinated) clause. In coding, we adhere to this general rule, but we have several special conventions about coding sentences.

a) First, responses to questions or commands which are not complete are coded as sentences. These may contain one or more verb-complement units. The pattern of the sentence to be coded is the "understood" part of the interviewer's question or command plus the child's response.

Int: What is your name?
Jimmy. = (My name is) Jimmy.
V compl.

Int: How old are you?
Five. = (I am) five (years old).
V compl.

Int: What is this?
A horsie. = (This is) a horsie.
V compl.

Int: Tell me what you see here.
A boat. = (I see) a boat.
V compl.

Sometimes, however, the pattern is not obvious - especially when the child answers a question which was not asked:

Int: What's he doing?
The tree and the boy.

Int: Tell me what is happening.
A boat, a man, a horse.

These have to be scored as units for which we cannot determine a pattern (code - R).

One word responses like "yes", "no", "yeah", "because", however, are NOT credited with an "understood" pattern. Like "uh-huh", "huh?", etc. These are ignored in the coding.

b) The second convention deals with treatment of coordinate structures. These are clauses connected by coordinate conjunctions (and, but, or, etc.) Independent main verb clauses connected by coordinating conjunctions are coded as two sentences (and thus have two consecutive sentence numbers).

I went to school and then I came home.
1st sentence 2nd sentence

These two sentences above each have one verb-complement unit. Essentially, each main verb V-C unit is considered a sentence, even if the subject of the second verb is deleted because it is identical with the subject of the first verb.

I went to school and saw the teacher. (two sentences, two verb-complement units)
1st sentence 2nd sentence

In both examples above, two main verbs are coordinated. They are assigned two consecutive sentence numbers. Coordinated objects, as in the examples below, are considered to be in the same sentence, even if separated or interrupted.

I saw Jimmy and the teacher. (one sentence, one V-C unit)
compl.

That's the house . . .
V compl.
Int: Yeah. (One sentence, one V-C unit)
. . . and the cars.

Compound dependent V-C units will exhibit the same sentence number as the main verb, but different V-C unit numbers.

He tried to cook and serve the dinner properly. (one sentence, three V-C units)
MAIN V dep.v dep v

c) Questions are coded according to the pattern of their declarative counterpart. That is, they are turned into statements, then coded. (They are tagged as questions in another section, so the information is not lost.)

What's that? = That is X (what).

Who are you? = You are X (who).

Where are you going? = You are going X (where).

Can she play ball? = She can play ball.

d) Passive sentences are coded according to the pattern of their active counterparts. (And are tagged as passive elsewhere.)

1. Normal Passives

The ball was thrown by the boy. = The boy threw the ball.

The car got pushed by the truck. = The truck pushed the car.

I was graded by the teacher. = The teacher graded me.

2. Truncated Passives - The agent (or subject of the active sentence) is deleted.

I was given a fair grade. = X gave me a fair grade.

The baby was named Eric. = X named the baby Eric.

It is important to note the distinction between these truncated passives and a similar structure - copular verb + adjective participle: was frightened, is exciting, were worried, etc. This is discussed on pp. 21 - 24 of this manual.

4. Modals: These are auxiliary verbs added to the main verb to convey ideas of necessity, possibility, obligation, etc. These are not coded as separate verb-complement units: only the principal verb is coded, as with other auxiliaries.

Regular Modals

can	shall
could	should
may	will
might	would
must	

In addition, many of these modals have equivalent forms, which we also do not code. Be sure to test that these modal equivalents actually have this modal meaning. For example, "going to" may sometimes be used in its normal intransitive sense.

Why is he going over there?
He's going to feed the chickens.

In this case, "going to" means "going in order to" (main verb + adverbial phrase - two V-C units), rather than "will", the modal equivalent (where only the main verb would be coded).

Modal Equivalents

going to (gonna) = will	had better = should
have to (hafta, have got to) = must	be able to = can
used to = did	ought to = should
are to = must, shall, could	be supposed to = should

But: These equivalent forms of modals look very similar to constructions which we do code as separate verb-complement units. However, these cannot be reduced to one-word forms of modals.

like to want to love to try to
hate to fixing to start to decide to etc.

Since we are ignoring the modals and other auxiliaries in the coding, we do not count them as expanding elements, either.

CODING SYSTEM

I. Numbering Units

A. Verb-complement unit number in transcript

B. Sentence number in transcript

These are numbered consecutively throughout the transcript, from 001 through n. When scoring a transcript, write the V-C unit number in pencil in the left-hand margin opposite the unit being scored. The sentence number is also indicated in parentheses:

001 (001) = first V-C unit, first sentence
100 (091) = hundredth V-C unit, 91st sentence

Every sentence has at least one V-C unit.

V-C #	Sent. #	Sentence
001	(001)	That's a cow.
002	(002)	He fixing (1) to get (2) that.
003	(002)	(3rd V-C unit in 2nd sentence)
004	(003)	This is (1) a house to climb (2) on.
005	(003)	

Problem Cases:

a) Sentences inserted within another sentence:

V-C #	Sent. #	
		Int: What do you see here?
006	(004)	A donkey. = (I see) a donkey

V-C # Sent. #

Int: Yes.

and a man.

007 (005) That his body. (Deleted verbs are counted as units, too.)

and a chicken.

Here, V-C number 006 is a sentence with three coordinated, but discontinuous objects (donkey, man, chicken). V-C number 007 is inserted within V-C number 006.

b) Sometimes, children produce long lists of things they see in a picture. These are coded as a single V-C unit. (But other V-C units may intrude as above.)

Int: Do you know what they are?

008 (006) Army mans and the boat and the bear
*a clown

Int: Um hum.

* boat * a giraffe

Int: Um hum.

and the whistle thing.

c) Direct discourse: The sentence within quotes is treated as the direct object of the main verb-complement unit. Thus, the whole statement is one sentence, with multiple verb-complement units.

009 (007) The mamma say, "You put the same clothes on
010 (007) 1 2
011 (007) that you got dirty."
3

d) Coordinated independent clauses (which could stand alone as separate sentences), and coordinated main verbs are treated as two (or more) separate sentences.

012 (008) I went to school
013 (009) and then I came home.
014 (010) I went to school and came home.
14(10) 15(11)

II. VERB-COMPLEMENT PATTERNS

CODE: A = S Vi Subject + Intransitive verb

Intransitive verbs do not have objects. Examples:

He goes. (walk, swim, run, breathe, sleep, etc.)
He got way up in there.
They got in.
I been playing over there.

May verbs have both transitive and intransitive meaning. For example, stick, as a transitive verb, means "to pierce or impale something." As an intransitive verb, it means "to become fixed." Some intransitive verbs like the transitive N-pattern verbs (see page 16) are really composed of inseparable verb-adverb or verb-prepositional combinations (get up, throw up, wake up). These verbs either become transitive without the adverb, or change their meaning. Verbs such as these will not be considered to be expanded.

Special Cases:

a. Many children insert what looks like a direct object after intransitive verbs.

He go his house.
He came over his house.

We will code these as A-patterns with adverbial noun phrases, like we would with the standard expression "He goes home."

b. Parenthetical verbs inserted in a sentence, such as look, see, watch are coded as intransitive verbs. They are given a separate V-C number, but have the same sentence number as the main verb of the sentence.

That man, look, he sitting down.
When the boy come, watch, he going to beat him up.
See, he probably going to go over there.
I can't come 'cause, see, its raining.

c. Parenthetical phrases such as you know, I guess, I mean, I think, when they are inserted as fillers or added as afterthoughts, are treated in the same way as inserted parenthetical verbs (above).

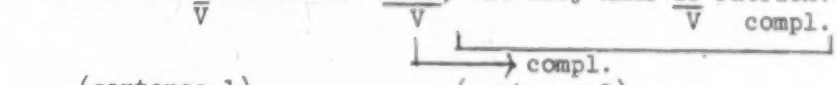
He painted it yellow, I think.
It's a pencil sharpener, I guess.
Like he had, you know, long hair.

These phrases are treated like separate verb-complement units,

but part of the same sentence as the other main verb unit. These are all intransitive patterns since there is no clear object of the verb.

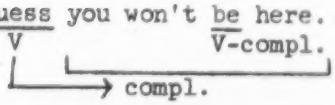
However, sometimes the phrases I mean, you know, etc., do take objects and are coded accordingly as transitive. This is when there is a clear object in the sentence:

One of them name Patrick. I mean, the baby name is Patrick.

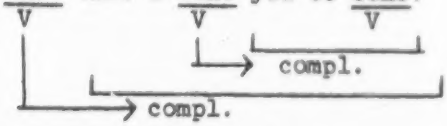


(sentence 1) (sentence 2)

I guess you won't be here.



You know that I want you to come.



These sentences with clear objects are coded as pattern D, rather than A.

CODE: B = S Vl $SComp^{adj}$ subject + linking verb + adjective subject compl.

Linking verbs join the subject to complements which describe or represent the subject. They include: become, seem, appear, taste, grow, look, look like, remain. The adjective complement describes the subject.

It turned sour.
It looks like candy.
It grew dark.
That tastes funny.
The weather seems cold.
He looks friendly.
You got dirty.
He feels like swimming. (adj. prepositional phrase)

I got in trouble.
He broke loose.
The door blew open.
The coat wears thin.
The buttons worked loose.
It looks like he's fixing it.

Certain passive constructions are coded as linking verbs also:

The weather was considered nasty.
He was thought bright.
They were found drunk.

CODE: C = S Vl SComp^{noun} subject + linking verb + noun subject compl.

Pattern C is like pattern B, except that instead of describing the subject, the complement functions as a restatement of the subject.

They remained friends. He seemed a scoundrel.
He turned traitor. He looked like a fool. (when means seem)

He became a teacher (become is most frequent)

CODE: D = S Vt DO subject + transitive verb + direct object

A transitive verb is a verb that has an object - a noun or noun phrase that receives the action of the verb. Most verbs are either transitive or intransitive, but some can be both, depending upon the construction of the sentence:

The fruit spoiled in the sun. = intransitive
The sun spoiled the fruit. = transitive
DO

The motor raced. = intransitive
He raced the motor. = transitive
DO

He washed. = intransitive
He washed himself. = transitive
He washed the baby.

Direct objects may vary widely in complexity. They can be one word, a clause, a whole sentence, or just a sound.

He hit her. He whispered "Boo."
V DO V DO
He saw the dog with the black spots. Tarzan went "Aargh!"
V DO V DO

You said that you would come. The dog goes "Woof, woof."
V DO V DO

The momma say, "What are you doing, Baby Bear?"
V DO

Many times a pronoun which refers to an entire sentence or phrase acts a simple direct object. It is easy to miscode these sentences since the pronouns don't look as much like direct objects as nouns or phrases do.

I said so. He don't know how. (Both Pattern D)
V DO V DO

Another common mistake is to code intransitive verbs followed by adverbs or adverbial noun phrases as transitive verbs with

direct objects: that is, as pattern D's rather than pattern A's.

He went home. (Pattern A, not D)
V Adv.

He goes his house. " "
V Adv. NP

A third type of common mistake (coding pattern A when pattern D is required) occurs in adjectival phrases or clauses. See the sentences below containing the deletions of direct objects which may occur.

1. That' all (that) she hear my mother say. (Constituents of clause acting as DO in relative clause as underlined)
DO Subj. V

2. That's a gate (that) you can swing.
DO Subj. V

3. That's a thing [thing](for people) to hold. (Note that the Direct Object of hold is deleted since it is identical with the word modified--thing.)
subj V

In the first sentence above, both the relative clause modifying all and the direct object clause within the relative clause are Pattern D's. However, the relative pronoun which is optinally deletable in this one is the direct object of the clause acting as the direct object in the relative clause. Thus the structures of the separate VC patterns in this sentence are:

That is all. (Main verb VC unit, pattern S)
S V Comp

She hear my mother say (that). (Relative clause modifying all, Pattern D)
S V DO

My mother say (that). (Clause acting as direct object of hear, Pattern D)
S V DO

In the second sentence the relative pronoun that is optionally deleteable is the direct object within the relative clause. In the third sentence containing the verbal phrase to hold, there is one obligatory deletion and one optional deletion. The subject people, etc., may or may not be included when it does

not have specific reference, but the direct object is always deleted since it corresponds to the noun modified--thing.

It has already been mentioned that sentences with direct quotations are D patterns. In coding the expandability of such D pattern VC units, you will need to look at the nature of the quote. If the quotation contains anything from a modified noun to a sentence or paragraph, the main verb will be considered expanded.

He said "Pretty boy." (Quote contains adjective modifier, so main verb is expanded.)

He whispered, "Get lost." (Quote is a sentence, so main verb is expanded. (Code 2) Note that the clause acting as the direct object here itself has not expansions and the deletion of the subject--so it will be coded 3 on expandability.)

CODE: E = S Vt IO DO — subject + transitive verb + indirect object + direct object

The indirect object tells to or for whom something is done. It only occurs when a direct object is also expressed or implied. It usually comes between the verb and the direct object.

He gave her (IO) some food (DO).

I'll get me (IO) one (DO).

Do me (IO) a favor (DO).

We are also coding the alternative structure with "to" or "for" as pattern E.

He gave food (DO) to her (IO).

I'll get one (DO) for me (IO).

Do a favor (DO) for me (IO).

CODE: F = S Vt DO OComp$^{adj\ or\ noun}$ — subject + transitive verb + direct object with an adjective or noun complement

The complement acts to complete the meaning of the direct object. This pattern is scored when the verb in question may have an adjective, or either an adjective or noun acting as an object complement. Note that adjectival prepositional phrases can serve as the objective complement. They may be distinguished from adverbial prepositional phrases by the fact that a true adjective may be substituted for them. Also note that because the pattern calls fro an adjective or noun complement and because a simple prepositional phrase or simple participle can act like an adjective, any F pattern sentence containing these types of "adjective complements" will not be considered expanded.

They called him Paul.
DO compl. (noun)

They called him foolish.
DO compl. (adj)

They painted the town red.
DO compl. (adj.)

They got it dirty.
DO compl. (adj.)

It keeps the fishbowl clean.

She wants all the things awake.

I consider him crazy.

She got (made) her leg broken.

I got me in trouble.

We caught him off guard.
DO compl. (prepositional phrase acting as adjective - means unprepared.)

We found Ermintrude in a rage.
DO compl. (prepositional phrase acting as adjective - means angry.)

Also with perception verbs: I see a lady asleep.

Note that this pattern is used with verbs like believe, think, and consider, which allow nouns, adjectives, or verbal phrases to he the objective complement.

We thought him a fool.

We thought him foolish.

We thought him to be a fool.

Sentences like the third example above with verbal phrases used as the objective complements will be considered expanded.

CODE: G = S Vt DO OComp.$^{\text{noun only}}$ subject + transitive verb + direct object which takes only a noun complement

This pattern is scored when a noun is the only kind of complement which can occur, in contrast to pattern F which takes an adjective or noun.

They elected Nixon president.
DO noun compl.

They named the baby Eric.
DO noun compl.

CODE: H = S Vc SComp^{adv}

The copular verb (Vc) is all forms of the verb to be. (Deleted forms are scored too.) The "to be" verbs in these sentences are actually a little different from the copulas in patterns I and S, since these H pattern verbs usually have some substantive meaning (remain, continue, exist, occur, belong, have a position). In fact, they are sometimes called predicating verbs with existential meaning, and thus they can be modified by adverbs, prepositional phrases and adverbial phrases and clauses. The more frequent adverbs are ones of place, or location. Locative prepositional phrases (indicating location) function as adverbs; thus, sentences with the copula plus a locative prepositional phrase are scored as pattern H. The use of a simple prepositional phrase as the adverbial complement will not be considered an expansion to this pattern.

The dog was outside.
Vc compl.

Who was in the car?
Vc compl.

My sister (_) at home.

A police (_) after him.

Mt. Lassen is on your left.

The verb to be has a special meaning and use with the perfect form (have been). It is the only form of the verb that occurs with locative to:

I've been to London.

They have been to the zoo.

With the perfect, and followed by to, the verb has the meaning of having gone and returned.

He has gone to school. (He's still there.)

He has been to school. (He's home now.)

Although it is close in meaning to "go", a pattern A verb, we will code it according to its form - thus it is pattern H.

CODE: I = S Vc $SComp^{adj}$

The adjective complement in this pattern may be a simple adjective, ordinal number, superlative, a prepositional phrase, a verbal phrase or even an adverb used as an adjective..

It is green. I was first.
She's pretty. You were best. } adjectives

The day's work is over.
The matter is otherwise. } adverbs used as adjectives

He was off guard.
He is in a rage.
The theory is over my head. } adjectival prepositional phrases

The bus is to go to school on.
It's to hold it up with.
That dress is to go to church in. } verbal phrases used like adjectives

He was frightened.
The job is exciting.
The girl was worried. } simple participles as adjectives. (These participles are not coded as separate V-C units.)

When an adverb, prepositional phrase or verbal phrase is used in this pattern, one should be able to think of an adjective close in meaning to it. For example: over - done, otherwise - different, off guard - unprepared, in a rage - angry, to go to school on - school-going, to go to church in - fancy, pretty in the sentences above. If no adjective can be substituted for a prepositional phrase, score the pattern as H rather than I.

It may be hard to decide whether a verbal phrase in the subject complement position is acting as a noun or an adjective. Generally, if it describes or gives the purpose of the object, it will be considered an adjective ("It's to hold it up with.").

The I-pattern sentences with simple participles acting as the adjective complement (e.g., "He was frightened") are often difficult to distinguish from sentences containing truncated passive verbs (e.g., "He was spanked"). For a discussion of this problem, see the section on pp. 21 - 24: PROBLEMS WITH PARTICIPLES.

CODE: J = S Vt DO - no passive form — subject + transitive verb + direct object, with no passive form of the verb

This pattern differs from pattern D because certain verbs do not have a passive form, whereas normal transitive verbs (pattern D) can be either active or passive.

Some verbs lacking passives include: have, lack, resemble.

He had a dog.
V DO

I have too much to do.
V DO V

The house lacked charm.
V DO

The pattern-J meaning of "have" and "got" is always "possess." For other uses of these verbs, see p. 18 under pattern-Q, catenative verbs, and pp. 21 - 24, under PROBLEMS WITH PARTICIPLES.

CODE: K = S Vt DO (measure) — subject + transitive verb + direct object of measure

This pattern is scored when the direct object is a unit of measure.

He walked miles.
V DO

He jumped six feet.
V DO

He grew two inches.
V DO

She gained ten pounds.
V DO

CODE: L = S Vt (IO) Comp — subject + transitive verb + optional indirect object + complement.

This structure also does not have a passive form.

That dress cost me plenty.
V IO compl.

The trip takes me an hour.
V IO compl.

Those last me years.
V IO compl.

CODE: M = S Vt DO DO subject + transitive verb + direct object + direct object

Some verbs can take one or two direct objects: show, ask, tell, teach, promise, strike (in the sense of "striking a blow"). This pattern is coded only when two direct objects are present. (When they are both direct objects, either one may be dropped and the sentence will still make sense.)

He struck the rock a blow.
DO DO

I promised him that I would do it.
DO DO

The teacher asked him a question.
DO DO

Don't tell me that story.
DO DO

The distinction between this pattern and pattern E (S Vt IO DO) is not always clear. To tell whether the first object is direct or indirect, leave the second object out, and see if it makes sense as a statement and as a question. If it does, it is a direct object, because it can appear alone. Either DO can stand alone.

Pattern E

I'll get me one.	*I'll get me *Did I get me	(*Indicates non-permissible statement in English.)
He gave the dog food.	*He gave the dog *Did he give the dog	

Pattern M

He asked them that.	He asked them. He asked that. Did he ask them? Did he ask that?
He showed them the snake.	He showed them. He showed the snake. Did he show them? Did he show the snake?

Note that when a clause is in the second direct object position, the first DO cannot be dropped. Thus the pattern must be scored as a Q, not an M.

Pattern Q

He told them to do it.	He told them. *He told to do it.
He asked them to come.	He asked them. He asked to come. (This is OK, but it is a different meaning of ask, and a different structure from the original.)

CODE: N = S Vt DO - inseparable verb-preposition

Many verbs have developed and changed into new verbs by being combined with prepositions. They look, however, just like a verb with a prepositional phrase, except that when the sentence is put into the passive, the preposition remains with the verb.

He looked at the house. (The house was looked at.)

He shot at the lion. (The lion was shot at.)

He looked into the charges. (The charges were looked into.)

But this does not work for:

We must look beyond the present. (*The present must be looked beyond.)

They walked across the street. (*The street was walked across.)

He walked up the stairs. (*The stairs were walked up.)

The other requirement for a verb + preposition to be coded as pattern N is that the combination must involve a change in meaning for the verb, of the action described, --and not just add information about the direction of the action. For example:

To look, to look for, to look after, to look into
(These all describe different actions.)

To climb, to climb up, to climb down
(These describe the same action, with the prepositions or adverbs adding information about the direction.)

Many constructions will be borderline. In these cases we will prefer them to be coded as pattern-A, since they will then be expanded by a prepositional phrase.

CODE: Ø = S Vt DO - verb-particle (separable)

This pattern is similar to the preceding pattern - the preposition remains with the verb in the passive form of the sentence. However, this pattern has a particle (the preposition) which may be separated from the verb and can appear on either side of the object.

They rolled up the rug. (They rolled the rug up.)

He will look up the number. (He will look the number up.)

He tried out the new bike. (He tried the new bike out.)

Look over this page. (Look this page over.)

The particle can only appear on one side of a pronoun. (They rolled it up.) Substitute a noun for the pronoun first, and then test whether the particle can move to either side of the object.

The particle also remains with the verb in the passive:

The rug was rolled up.

The number was looked up.

The bike was tried out.

CODE: P = S $V_{(put)}$ DO loc

Verbs included in this pattern are: put, place, set, stick
The locative adverb or prepositional phrase must be present for this pattern to be complete. These elements, therefore, are not considered expansions of this pattern.

He put the ball on the table.
V DO loc

Set the chair in the corner.
V DO loc

They stick stuff on the bed.
V DO loc

He puts it there.
V DO loc.

CODE: Q = S $V_{(catenative)}$ (IO) Verbal Complement

Catenative verbs are verbs which can form chains. All but the last verb in the chain must be catenatives.

He tried to teach them how to learn to fly.

He decided to begin trying to stop smoking.

The non-catenative verb may have whatever complements it would have, if it were the only verb in the sentence. Each verb-complement is coded as a separate unit, within one sentence. The second or successive V-C unit is a complement of the first (or preceding) V-C unit.

They stopped giving Jimmy an allowance.
$V_{(cat)}$ V IO DO
└→ compl.

I like to watch Lassie.
$V_{(cat)}$ V DO
└→ compl.

She told John to go to school.
$V_{(cat)}$ IO V compl.
└→ compl.

The teacher let me come.
$V_{(cat)}$ S Vi
└→ compl.

Let the boy ( ) up.
$V_{(cat)}$ S Vi
└→ compl.

"Let" in the sense of "allow, permit" is catenative. Sometimes the second verb is deleted (from the complement), especially when part of the verbal unit (the particle or preposition) is present. The deleted verb is understood.

Another example of an "understood" verb is as follows:

E: Did Colin come to school today?

Child: No. He didn't want to [come to school].

The complement "come to school" is deleted, but understood in context. Its presence is indicated by the existence of the verbal introducer "to". The main verb "want" is therefore a catenative in this example.

All of the verbs which may enter into these verb chains may also take just simple direct objects (He wants a cookie). Pattern Q will only be coded when the catenative verb is followed by a verbal complement, because this pattern requires a verbal complement. Unlike other patterns, the presence of such a complex complement will not be considered an expansion of the "Q" main verb. For a further discussion of expansion, see Section III--Expandibility, Codes 1 and 2, pp. 25-27.

BE CAREFUL not to include auxiliaries in this category:

I'm going to be walking to school.
auxiliaries V

The car has to work. (Has to = must)
aux. V

PROBLEM CONSTRUCTIONS WITH THE CATENATIVE VERBS

"Have" and "get" are particularly difficult catenative verbs to deal with because these verbs have many uses, and it is hard to distinguish this one from their other patterns.

PATTERN Q:

Have (get) - "experienced": catenative; the complement is frequently a truncated passive

1. The boy had his tooth pulled.
V(cat) DO V
compl.

2. The boy got his tonsils taken out.

The event experienced is the complement of the catenative verb:

1. His tooth was pulled (by someone).

2. His tonsils were taken out (by someone).

Have (get) - "cause to happen", other is agent:

1. I had my rugs cleaned. (X cleaned my rugs.)

2. I had my hair done. (X did my hair.)

The event that happened is the complement of the catenative verb; it is also frequently a truncated passive.

THESE CATENATIVE USES OF "HAVE" AND "GET" MUST BE DISTINGUISHED FROM OTHER USES:

Pattern F:

Get - "made" or "cause to happen," self is agent:

They got their shirts dirty.
He got his pants torn.
He got his leg broke. (When he did it himself; if someone else broke his leg, this would be Q, above.)

Pattern F has a transitive verb, direct object with an object complement. There is only one V-C unit coded in the sentence. These pattern-F examples have a more active, causative meaning than the following pattern-J examples.

Pattern J:

Have (get) - "possess":

He has his shirt unbuttoned.
He has sharpened teeth.
I have my work all done.

The participles are treated as simple adjectives, not coded as separate units. See pp. 21 - 24 for further discussions of participles.

Pattern B:

Get - "become":

He got worried. It got broken.

These look like passives, except that there is no agent implied. See pp. 21 - 24 for a further discussion of participles.

CODE: R = cannot determine pattern

This pattern is scored when the pattern of the verb-complement unit cannot be determined because of deletions, mazes, uninterpretable words, etc. Score only the V-C unit number, the sentence number, pattern R, the environment and the part of the interview. Leave all other columns blank.

Pattern-R units occur most frequently when the experimenter asks "What's happening?", or "What can you tell me about this?" and the child responds with lists of nouns. These nouns must be coded as R-units because a variety of sentence types are possible following these types of question, and the underlying pattern is not clear. Another common type of "R" sentence involves questions asked by the child which are too elliptical to code, such as "How about another hippopotamus?". In this situation, this meant something like "Why don't you give me a picture of another hippopotamus?".

CODE: S = S Vc SComp^{noun} subject + copular verb + noun as subject compl.

They are animals. (Vc, compl.) This is mine. (Vc, compl.) That's all. (Vc, compl.) His name ( ) Bullet. (V, compl.)

All noun complements containing verbs or verbals will be considered to expand the pattern. Note that "because" and "like" can sometimes introduce noun clauses:

His object is to get there as soon as possible.
(Vc; verbal phrase - noun compl.)

That's because he is a good boy.
(Vc; noun compl.)

That's like the giant takes the little boy.
(Vc; noun compl.)

The reason is that I'm late.
(Vc; noun compl.)

PROBLEMS WITH PARTICIPLES:

Sentences containing participles present a number of problems for coding.

A. Participial Adjectives Vs. Passives:

First, there is the problem of distinguishing truncated passive sentences from sentences with a copula and a participle acting as an adjective complement. For example, the sentences on the left below are coded as containing a copular verb and an adjective complement, whereas the ones on the right are coded as containing transitive verbs in the passive voice.

He was frightened. cop. adj. compl.	The dog was run over. passive verb
The job is exciting. cop. adj. compl.	The burglar was shot. passive verb

The distinction between these two alternative structures is not always an easy one to make. In fact, we must sometimes rely on contextual cues. For example, "He was frightened", occurring in the context: "Harold saw the bear and was frightened", might be coded as a passive, since there clearly is a possible agent.

Passive: Harold was frightened (by the bear).

Active: The bear frightened Harold

To make matters even more complicated, sometimes participles acting as adjective complements are followed by prepositional phrases which look like possible agent phrases for passives, but which are not.

The children were scared of the snakes.
cop. adj. compl.

The girl was worried with the dogs snarling down the street.
cop. adj. compl.

Note that participles acting like "true" adjectives frequently may be preposed before the noun they modify and/or be modified themselves by intensifiers such as too and very.

The frightened boy; the very frightened boy;
part. preposed before noun int. part adj.

He was too frightened to move.
int. part. adj.

The exciting job; the very exciting job; the job is too exciting for me.
part. noun int. part. noun int. part.

When you try to prepose the past participle form of the verb in a passive sentence before a noun and/or modify it with an intensifier, it often sounds "odd".

*The run-over dog; *The dog was very run over; *The too run-over dog

*The shot burglar; *The burglar was too shot; *The very shot burglar.

Thus you may want to use four tests to help you decide whether a structure like this is a participial adjective rather than a passive verb:

1. The word appears in the dictionary as an adjective.
2. The word may be satisfactorily preposed before the subject.
3. An intensifier may be placed before the word.
4. There is no information from the context of the other sentences nearby to indicate that it might be passive (e.g., no clearly implied agent).

Some examples:

He was frightened. (Pattern I, adj. compl.)
He was frightened by the ghose. (Pattern D, passive)
He was frightening. (Pattern I, adj. compl.)
He was frightening Mary with the mask. (Pattern D, active)

B. When and When Not To Code Participles Separately

Another type of problem having to do with the coding of participles involves the decision whether or not to code the participle as a separate verb-complement unit. The following rules should be applied in such decisions.

1. The participles which are used as simple adjective complements in pattern I described above or in patterns B or F or which are used as pre-noun modifiers, will not be coded as separate V-C units. See examples below.

He became scared. (1 V-C unit - pattern B, participle used an adj. compl.)

He made the boy scared. (1 V-C unit - pattern F; participle used as adj. compl.)

He is scared. (1 V-C unit - pattern I; participle used as adj. compl)

The scared boy jumped the fence. (1 V-C unit, pattern D; participle used as pre-noun modifier.)

2. All postnoun participles which modify either a noun or a verb and which can easily be converted into the verb of a relative or adverbial clause, will be coded as a separate dependent modifying V-C unit.

The girl running down the street forgot her package.
(— who was running down the street)

(2 V-C units, one main verb, one dependent part, phr.)

Fishing in the stream, Joe found a gold nugget. (2 V-C units, 1 main, 1 dependent part. phrase)

3. Participial-like forms can act as verbal complements of catenative verbs (pattern Q). In these cases they are also coded as separate V-C units acting as complement constituents.

He tried going to work. (2 V-C units - one main, one a verbal complement constituent)

She likes washing dishes. (2 V-C units, one main verb, one a complement)

4. Naturally, all participial forms of the verb in passive sentences, since they themselves are the main verb, will not call for a separate V-C unit coding.

Martha was knocked out by the ball. (One main V-C unit in the passive)

Joe got tricked by the magician. (One main V-C unit in the passive)

C. Participles Following Have or Get

Probably the most difficult cases to be decided involved the verbs have and get since they may appear in a number of different V-C patterns.

As catenative verbs, have or get either mean "cause someone else to do something" or "experience something that someone does to you." Remember that in these instances, the participles following them are coded separately as verbal complements.

Sam had his costume repaired by the wardrober while he put on his makeup. (2 V-C units - Had is coded as the main verb in pattern Q, repaired is coded separately as the verbal complement constituent)

Gloria got her arm twisted as she tried to steal the handbag.
(2 V-C units - got is a catenative main verb, twisted is the verbal complement)

Since get is sometimes used to mean become, it may appear in B patterns and thus the participle following it will be coded as a simple adjective complement and not a separate V-C unit.

He got worried when she didn't return from the store.
(got = became, worried is simple adjective complement)

When got means "made something happen" and occurs in an F pattern, the participle which may follow the direct object will be considered a simple adjective complement and not a separate V-C unit.

Joe got the boy frightened by yelling "Boo."

(got = made something ahppen to self or to another, pattern F, frightened is a simple adjective complement of boy and not the verb in an embedded phrase; i.e., the meaning of the sentence is: "Joe caused the boy to become frightened ..." and frightened is still the adjective complement of a linking verb.)

When have or have got mean "possess" or "contain as a characteristic" (usually pattern J), sometimes a participle following the direct object will act like an adjective complement and produce an F pattern like the one above. Thus only one V-C unit will be coded.

Joe has his shirt unbuttoned.

(has = "possess," pattern F, unbuttoned is an adjective complement of shirt. Again note that the meaning of the object and its complement is "his shirt is unbuttoned," not "someone unbuttoned his shirt.")

At other times with have meaning "possess" etc., the participle following the direct object will be coded separately since it acts like the verb in a modifying clause.

Sylvia has four brothers living at her house.

(has = "possess" etc., Pattern J, living at her house is coded as a participial phrase modifying brothers. Note that if the phrase were converted to a relative clause, living would be the verb in the clause.)

Got also appears as the auxiliary with passive verbs and have is sometimes an auxiliary with both passive and active verbs. Have + to when it means "must," in our coding system, is also considered an auxiliary.

The car got hit by the truck. (1 V-C unit, got is an auxiliary with the passive verb hit.)

The plan has worked every time. (1 V-C unit, has is an auxiliary with active verb worked.)

The scissors have been broken by the kids. (1 V-C unit, have is an auxiliary with the passive verb broken.)

I have to get up at 6 A.M. (1 V-C unit, have to = must: e.g., auxiliary with get up.)

To fill out all the possibilities, got when it means "obtain" or receive" is coded as a "D" pattern; when "got" means "obtain for" it is an E pattern.

He got a basketball. (1 V-C unit, got is the main verb in pattern D.)

Gloria got Mother the letter. (1 V-C unit, got is the main verb in pattern E.)

In a sentence like You got your hands on that picture, the got is more like put, with the locative phrase required, and thus is coded as a P pattern.

III. EXPANSION-DELETION

CODE: 1 = Minimum form

Score a pattern as #1 when it includes all the elements of the pattern as stipulated by its definitional description, but nothing additional. The following are examples of minimum form sentences:

A = S Vi: He swimming. They run.

D = S Vt DO: He hit her. The dog says "Woof."

H = S Vc $SComp^{adv}$: They are in the park. I am here.

N = S Vt DO (verb-prep.) They looked at the house.

Q = S V_{cat} Verbal Comp: They tried to work it. He wants to come.

All elements indicated in the pattern must appear in the V-C unit scored; no other elements may appear that add meaning to the sentence. Note that when the pattern requires a complement, such as H, P, and Q, the adverb or prepositional phrase (in H & P) and verbal complement (in Q) are required for the minimum form and do not expand.

CODE: 2 = Minimum form + expansions

Score a pattern as #2 when the minimum form is present and other elements in the sentence expand its meaning. Expansions refer to all modification of a V-C unit by adjectives (including, for example, possessive pronouns - my, your, his . . .); by adverbs (including relative adverbs - when, where, how, etc., and then when it is not a conjunction); by phrases (verbal and some prepositional); and by clauses. Compound constituents (subjects, DO's, complements) also expand.

a) Expansions of main verb units:

by adjectives: Those little boys want to go. (pattern Q)

My brother is here. (pattern H)

That's a big one. (Pattern S)

He is black and brown. (pattern I - compound complement.)

by adverbs: Then I left. (pattern A)

They run too fast. (pattern A)

I hit him hard. (pattern D)

Yesterday they wanted to go. (pattern Q)

But "then" does not expand when it is a conjunction:

I baked a cake; then I ate it. (both pattern D, neither are expanded)

by verbal or prepositional phrases:

That's a tree to climb on. (pattern S)

The boy on a tree gonna fall. (pattern A)

We waited to see you. (pattern A)

by clauses:

After she came, I put the roast in the oven. (pattern P)

The girl who came ate the roast. (pattern D)

b) Expansions of subordinate units (+ minimum form):

by adjectives: I know that those little boys climbed the tree.

(pattern D - both units expanded)

She let me bring my dog. (Main verb - Q; sub. unit - D)

by adverbs: I know where I'm going. (main v. - D; sub. unit - A)

(the relative adverb "where" both introduces the relative clause and modifies the verb in the clause: I'm going where.)

I told you when I would come. (main v. - M; sub unit - A)

That's all that I see here. (main verb - S; sub. unit - D)

(relative pronoun "that" both introduces and serves as DO; adverb here expands; "I see that here")

by phrases I want you to go to the doctor. (main v. - Q; sub. v. - A)

The teacher knows I brought a dog to school.

(main v. - D; sub. v. - D)

by clauses He made me tear the dress I got for Christmas.

(main v. - Q; tear - D)

I want you to call me when you get home.

(main v. Q; call - D)

EXCEPTIONS: Elements which do not expand include:

a) Articles - a, an, the

b) Negatives - no, not

c) Titles and proper names act as "units" and count as one word:

I watched "The Bold Ones."

I read "Snow White and the Seven Dwarfs."

This is picture number four. (like a proper noun)

He's a German Shepherd. (proper noun)

The girl is Elizabeth Barrett Tucker.

d) Interjections - oh, well, wow, hey, and yes and no.

e) Conjunctions - and, or, because, and then, then, etc. (when then is not an adverb). The only conjunctions which expand are relative adverbs which both introduce and modify the verb in the subordinate or constituent clause.

f) Modals and auxiliaries - For this coding, these will not be considered to expand the verb. Only the principle verb is considered in the coding.

CODE: 3 = deletion in the pattern described

Score as #3 when the V-C pattern being coded has one or more elements missing from the pattern coded in column 9. This includes both optional deletions and nonstandard deletions such as:

- deletion of understood elements in answering a question
- copula deletion (nonstandard)
- deletion of subject in the second V-C unit of a compound verb

Also, there are no additions to the pattern described.

CODE: 4 = deletions + expansions

Score as #4 when there are deletions in the pattern coded in column 9 and when other elements have been included which expand the meaning. (As in #2, above.)

MORE INFORMATION ON EXPANSIONS AND DELETIONS

a) In pattern A verbs, where a proposition is clearly part of the verb, the preposition is not an expanding element. A preposition is part of the verb when it cannot be deleted without changing the meaning of the verb:

I threw up. (threw up ≠ threw)

They dropped in. (drop ≠ drop in)

The deal fell through.

The boys got up.

But where the basic meaning of the verb is the same, the "preposition" (really an adverb) adds more information about the situation, this is an expanding element:

I fell down. ("fall" and "fall" in "fall down" mean the same, but the direction of the action is specified in "fall down.")

He's climbing up.

b) Q-patterns - Expansion of the Main Verb

In pattern-Q sentences, the expandibility of the main verb often depends on the structure of the verbal complement (DO). If the complement is expanded, then the main verb is counted as expanded. If the complement is not expanded and there are no modifiers in the main verb part of the sentence, then the main verb is counted as minimum form:

He wanted to go. (complement - A is not expanded; therefore Q is minimum)
Q A

He wanted me to go. (A - minimum; Q - minimum)
Q A

I tried to call you yesterday. (D - expanded; Q - expanded)
Q D adv.

He made me tear my new shirt.
Q D adj.

Q-patterns - Expansion of the Complement

Note that when there is a nominal element in the complement of a catenative verb, this element is the subject of the complement. (Pronouns taking this role are always in objective case, however.) The complement pattern, therefore will on this count be at least in its minimum form, with no deletion of subject:

He wanted [me to go.] (A - minimum form)
Q S Vi

He made [me do it.] (D - minimum form)
Q S Vt DO

However, some catenative verbs like ask and tell are usually followed by a nominal element which must be considered to be the indirect object of the main verb - not the subject of the complement, though this indirect object is co-referential with the deleted subject of the complement.

He asked me to do it. (Q is minimum form; D, the complement, has subject deleted.)
Q IO Vt DO
D

I told them to be careful. (Q is minimum form; I, the complement, has subject deleted.)
Q IO Vc adj.
I

c) In pattern-D sentences with direct quotes acting as the direct object constituent, the expandibility of the main verb depends on the contents of the direct quote. If this direct object quote is a single word other than a verb, the sentence is unexpanded (minimum form).

The girl said "hi."
S Vt DO

The doggie goes "woof."
S Vt DO

If there is a verb in the quotation, we code another V-C unit in the sentence. This expands the main verb (D-pattern) whether or not the verb in quotes is expanded.

The girl said "Move." (said - is expanded; move - is not)

The boy say "you better get out the way." (say - is expanded; get - is also expanded)

d) In sentences with the "subjunctive - LET" construction, the subject is present, though not obvious in the pronoun or contracted pronoun following "let." These sentences are usually in (at least) minimum form:

Let's go. (= we should go)
(Aux) S Vi

Let us pray.
(Aux) S Vi

Let's play jumprope.
(Aux) S Vt DO

e) In certain answers to questions and anaphora, the expansion is determined by what the child says rather than what the understood part of the sentence might contain (although the pattern is determined by the understood parts):

Int: Who went to the movies yesterday?

Child: I did. (go to the movies yesterday) pattern-A, unexpanded - code #3 even though the underlying sentence is expanded.

Int: Where did they go?

Child: Into that house.
(This is pattern-A, expanded, since the child's response contains the expanding elements. The answer to the question would also have deletions, so the code is #4.)

f) Passive sentences are scored according to their corresponding active voice versions, and thus the prepositional phrase specifying the agent is required as the subject of the pattern:

The girl was kissed by the boy. (passive)

(---The boy kissed the girl.) (pattern D, code #1)

The balloon got thrown away. (passive)

(---X threw away the balloon.) (pattern Ø, code #3 due to deletion of subject)

There are some passive sentences which present extra problems because they have prepositional phrases which look like agent phrases (supplying the subject), but which are not:

The boy was hit with a board. (passive)

However, these prepositional phrases introduced by "with" specify the instrument, not the agent of the action, and thus the subject will still be considered to be deleted. The instrumental prepositional phrase will be considered an expansion.

(⟶ X hit the boy with the board.) (code #4)

IV. TYPE OF DELETION

CODE: 0 (zero) = no deletion was made. 1 or 2 was coded in col. 11.

CODE: 1 = Obligatory deletion

Some structures require deletions of certain elements of the pattern, where there is more than one V-C unit per sentence. For example:

(A) Some catenative verbs are followed by complements not containing nominal elements. With some verbs like the following ones the subject of the main verb is always the subject of the complement. In this situation, deletion of the subject in the complement is obligatory.

I decided to come. (I decided [for me] to come.)

My daddy tried to work it. (My daddy tried [my daddy] to work it.)

She began to run home. (She began [for her] to run home.)

Some catenative verbs allow nouns other than their subjects to be subjects of their complements. In those cases where the subjects of the main verb and the complement are not coreferential (are not the same person), the nominal element will usually be present in the complement. Where the two subjects are coreferential, the subject of the complement will be deleted obligatorially.

I want you to go away. I want to go away. (I want[me] to go away.)

I'd like you to do it. I'd like to do it. (I'd like [me] to do it.)

There is another type of catenative verb sentence which looks like the ones above on the left, but which is, in fact, different. The catenative verb in this third type of sentence is often ask or tell.

She told him to come home. (She told him [for him] to come home.)
IO Complement

His momma asked him to do it. (His momma asked him [for him] to do it.)
IO Complement

In the two sentences above, the pronouns following the main verb are the indirect objects of the main verbs--not the subjects of the complements. In these examples the subjects of the complements have been deleted obligatorially because they are co-referential with the indirect objects.

(B) Modifying participial and some infinitive phrases require deletion of their subjects because their subjects are identical with the word modified in the main verb unit.

The man carrying the ball fell down. (The man [~~man~~ carrying the ball] fell down)

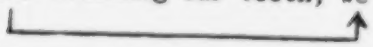
I'm a detective following you home.

I'm a detective [~~detective~~ following...])

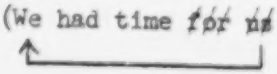
(C) Other participial, gerundive, and infinitive phrases require subject deletion because the subject of the dependent phrase is coreferential with the subject of the main verb.

Brushing our teeth, we looked in the mirror.

(We brushing our teeth, we looked...)

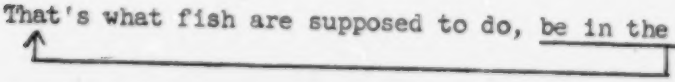


We had time to help them. (We had time for us to help them.

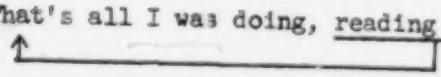


(D) "Verb appositives" never contain subjects because they restate a pronoun which itself stands for the verb phrase of a sentence. (See p for a more complete discussion of these structures.)

That's what fish are supposed to do, be in the fishbowl.



That's all I was doing, reading a book.



CODE: 2 = Optional deletion of subject or part of predicate in:

(A) Compounds: The second of two identical subjects (plus some auxillaries) of V-C units connected by a coordinating conjunction may be optionally deleted.

The dog (S) was running (Vi) and (the dog (S) was) barking (Vi).

I (S) will fly (Vi) to New York and (I will) drive (Vi) to Montreal.

(B) Correlative clauses: In the V-C units connected by the correlative conjunctions: both-and, either-or, neither-nor, not-but, not only-but also, the second of two identical subjects (plus auxiliaries) may be optionally deleted.

You (S) either put up (Vi) or (you (S)) shut up (Vi).

He (S) neither smokes cigarettes (Vt DO) nor (does he (S)) drink(s) liquor (Vt DO).

(C) Anaphoric deletion: Anaphora is type of deletion in a comment or statement which refers to the previous statement and includes that statement (or part of it) as "understood."

Who takes care of him?

I do [take care of him].

Don't go in there.

I won't [go in there].

My sister four.

Me, too. [I am four, too].

I think he's yelling.

He looks like he is [yelling].

Child: I have three brothers.

Int: Oh. There are three brothers.

Child: No. Four. The last one is me. [There are four brothers.]

The understood statement in anaphora may have been spoken by the interviewer or the child. It can occur in corrections of a previous statement made by either the interviewer or the child. It may also occur within one sentence, as in adverbial clauses:

He has big teeth like an elephant do. (has big teeth)

She fought like a tiger does. (fight)

Note that the adverbial clause, and thus the anaphora, is not coded unless there is a verb in the unit. Otherwise they are prepositional phrases:

He has big teeth like an elephant. (only one V-C unit, has)

Also note that the following is not an example of anaphoric deletion.

Is it a dog? I think so. (So is a pronoun which stands for the previous statement; there is no deletion.)

Catenative verbs require special attention. The complement of "want" is deleted in the sentence below by anaphora. We code only one V-C unit, the catenative verb "want," with the deletion. The deleted complement is not coded as a V-C unit at all.

Why?

Because I want to.

CODE: 3 = optional deletion of understood words in answering wh-questions

Also rhetorical questions, or repeating an answer of this type.

What's your name?

(My name is) Jimmy.

What did you do today?

(I) played games.

Tell me everything you see in this picture.

(I see) a boy and a horse.

CODE: 4 = optional deletion of subject with imperative or elliptical questions.

(A) Imperatives: Sentence containing verbs in the imperative mood, used to express a command. The subject may be deleted:

(You) meet me across the street.

(You) sit down and (you) be quiet.

(B) Elliptical questions: questions with words omitted.

(Do you) see that little thing?

(Do you) know what?

CODE: 5 = copula deletion

A common feature of Black English is deletion of forms of the verb to be in certain situations.

They _ in Africa.

That _ where they live.

He _ stuck.

But deletion of the auxiliary to be in:

He swimming.

He running.

is not coded as copula deletion. The main verb (swim, run) is present.

It is important to listen closely to the tapes because this is one of the easiest features to "hear" when it is not there; and also to "miss" when you don't expect the child to use it. Errors in transcription are high on this item.

CODE: 6 = optional deletion in a question asking clarification of the interviewer's question or imperative

There are always elliptical yes/no questions even if the interviewer's question is of the wh-type. The underlying structure of this type of elliptical question will always be considered to be a repeat of the experimenter's question prefaced by something like "Do you mean . . . "?". Thus the unit being coded will always be an unattached complement.

Int: And what do you do with it?

This one?
(Do you mean what do I do with this one?)

Int: What do you want for Christmas?

Me?
(Do you mean what do I want for Christmas?)

CODE: 7 = other optional deletions

(A) Optional deletions of object element (direct object, object of preposition) in relative clauses of embedded questions. These deleted objects are the relative pronouns (that, what, which, who,. . .) that, when present, also serve to introduce the subordinate clause. When these relative pronouns are deleted, we will also code introducer deletion: see p. 44.

That's all ( ) I see. (that - deleted)

(That - is DO of see; I see that)

The man ( ) we used to know came back.

(who(m), deleted, - is DO of know)

That's all ( ) I heard my momma say.

(that, deleted, - is DO of say, which in turn is complement of heard)

(B) Optional deletion of verbs when the verb is pattern N (verb-preposition combination) and the preposition is present:

I had my tooth out. (taken is deleted from taken out)

Let me up. (get is deleted from get up)

Let the dog in (come is deleted from come in)

I want this radio on. (turned is deleted from turned on)

In each case, the meaning of the verb is clearly understood.

(C) Optional deletion of subject when subject is understood to mean "everyone," "all," or "anyone."

It's always hard (for everyone) to play fair.

It's a thing (for everyone) to think on.

CODE: 8 = agent deletion in truncated passive

The subject of the corresponding active sentence is deleted.

passive: The ball was thrown onto the roof.

active: X threw the ball onto the roof.

passive: The baby was named Eric.

active: X named the baby Eric.

Keep in mind the difference between the truncated passive construction and:
a) the normal passive - discussed on p. 5.
b) participles acting as adjective subject complements, discussed on p. 21-24 under "Problems with Participles."

CODE: 9 = other nonstandard deletions

Sometimes the underlying pattern is not fully clear. Unusual structures may be omitted (or present). These result in deletions which do not fit into any of the previous categories:

Int: Tell me everything.

I do. (not clear what is omitted)

Int: Tell me all about this picture.

Climbing up the tree. (not clear what is omitted or what is the function of the verb provided)

Another nonstandard deletion occurs when the subject is deleted from gerunds, infinitives, and appositives appearing in the subject position of the sentence and when the subject of this gerund, etc., is not the same person as the noun in the predicate, nor means "everyone."

Going to bed late got the babysitter in trouble with the parents.
(refers to the children)

PROBLEM CASES: Double Deletions

Sometimes a V-C unit contains more than one deletion. These are of two types:

1) In the first type, we code only one deletion - the primary one made in the immediate utterance. These occur when questions or anaphora refer back to another statement where another deletion occurred:

I had my tooth pulled. (type 8 deletion)

When?

Last week. (type 3 deletion only)

"Last week" is credited with only the type-3 deletion, which refers to what was actually said, rather than to the previous "understood" pattern.

My sister four. (type 5 deletion)

Me, too. (type 2 deletion only)

"Me, too" is coded as having only the type 2 deletion, again referring to what was actually said, rather than to the "understood" part of the pattern.

2) In the second type, two (or more) actual deletions are present in the sentence as stated; we therefore code two deletions:

I got my tonsils out.

deletions: 7 - (taken) out, optional deletion of part of verb in understood complement
8 - agent deletion in truncated passive, (X [took] my tonsils out.)

Those are bars to hang on.

deletions: 1 - obligatory deletion of object (. . . hang on bars)
7 - optional deletion of subject, where subject is understood to be "people," impersonal "you."

Note that the "for . . . to" construction, which is optional, does supply the subject: "Those are bars for you to hang on."

It was a thing to walk and to talk. (a talkie-walkie!)

deletions: 1 - obligatory deletion of object in infinitive phrase
7 - optional deletion of understood subject.

I know a girl named Linda.

deletions: 1 - object deletion, obligatory in adjectival participial phrase
8 - agent deletion, truncated passive - (X named [the girl] Linda.)

Since both columns of deletions will be counted together, the order of these deletions is not important. BUT: if there is only one, score it in column 12 (with a zero in 13); and if there are two, score them in 12 and 13.

V. FUNCTION OF VERB BEING CODED

CODE: 1 = Verbal element in dependent adverbial clause

An adverbial clause is a group of words containing a subject and verb in a main verb form (i.e., not a verbal form as in infinitives and participles.) Adverbial clauses function the same way adverbs do -- modify verbs, sentences, etc. These clauses are dependent because they may not stand alone as complete sentences. Some introducers used with adverbial clauses include: as, if, when, before, after, until, because . . . . Adverbial clauses differ from adverbial phrases in that they look more like a main verb clause when the introducer is dropped -- i.e., they always contain subjects and the verb is in a main verb form. See examples below.

Adverbial Clause: Do it like I told you.

Adverbial Phrase: He brought me an apple, making me like him.

Other examples of adverbial clauses:

I can play after I finish dinner. Come when you finish your work.

Don't get up until I call you. Because she was tired, she sat down.

It looks like he is calling me. (like = as if; here the adverbial clause is considered to be acting as the adjective complement of the linking verb)

Although adverbial clauses technically also modify adjectives, we are separating this function off and coding it separately as function 7.

Note that there is a construction which looks like an adverbial clause, but which is actually an adverbial noun phrase plus a relative clause. Thus sentences involving clauses like the ones below should not be coded as including adverbial clauses.

The minute we get through messing we're going to paint the house.
Adv. NP Relative clause

The last time I did it, I got spanked.
Adv. NP Rel. Cl.

CODE: 2 = Verbal element in relative clause

Relative clauses usually modify nouns or pronouns. We are coding in this category only those clauses introduced by definite relative pronouns: who, that, which, as (like), what (nonstandard), and by definite relative adverbs: where, when, and sometimes why.

The man who just came in is my father.

They owned the house which burned down.

I bet on the horse that finished last.

The place where I usually go was closed.

The reason why he did it was not obvious.

These introducers all have specifiable antecedents which they modify (and are therefore definite). Often the introducers can be deleted:

That's all I see. (that - deleted)

I saw a girl I used to know. (that - deleted)

This is the letter I forgot to mail. (which - deleted)

Note that relative clauses may modify nouns in adverbial noun phrases (See examples above.)

CODE: 3 = Verb in parenthetical clause

These are clauses which are inserted as "fillers" in a sentence, or added on as afterthoughts. They are intransitive (pattern A) and include: look, watch, see, you know, I guess, I think, I mean, etc. When these clauses are coded as pattern A in column 9, they function as parenthetical verbs and should be coded as function 3.

However, phrases such as I mean, you know, I guess may also act as main verbs and take a direct object complement. These would have been coded as pattern D in column 9 and would also function as main verbs (function 4). See page 8 for more examples.

Parenthetical V-C units are considered to be dependent clauses acting as constituents for the coding of the modification and environment categories.

CODE: 4 = Main verb in sentence

This is the verb in the main clause, which "stands alone." It is not subordinated to any other constructions. In a simple sentence, the main clause is the sentence.

I walked home.

I bought the dog.

In a complex sentence, there is a main clause and a subordinate clause or complement.

I know (main) that you will do well. (subordinate)

Bring (main) me the scissors that are on the table. (subordinate)

She said, "I'll write it tomorrow."
main complement

In a compound sentence, there are two or more main verbs joined with coordinating conjunctions.

I draw pictures and play games.

He slipped and fell.

These two sentences have two main verbs coordinated in one sentence. However, when two main clauses are coordinated, we count each as a separate sentence having one main verb.

I called him but he didn't come.
1st sent. 2nd sent.

I got sick and I went to the doctor.
1st sent. 2nd sent.

CODE: 5 = Verbal element in subject constituent

Verb is in phrase or clause acting as the subject of the sentence.

Feeding the animals is forbidden.

Catching snakes is dangerous.

That he came back was surprising.

To hear his story is to believe it.

CODE: 6 = Verbal element in complement constituent.

Verb is in phrase or clause acting as the complement - usually this is the direct object.

You know I want to come.

I told you that I would be late.

I like to play games.

They started chasing the monster.

He saw them steal the motorcycle.

Note that elliptical answers to "What do you like to do" questions - i.e., "Paint", will be coded as function 6 since the underlying sentence would be "I like to paint."

Also elliptical questions of clarification from the child (e.g. "This one?") after a question from the interviewer will be coded as function 6 since the underlying sentence is taken to be something like: "Do you mean do I like this one?"

CODE: 7 = Verbal element in clauses modifying adjectives.

This specialized subset of adverbial clauses includes:

a) comparative clauses:

He's bigger than I am.

The trip was worse than I remembered.

b) correlative clauses:

He is as big as a house is.

He ran as fast as I did.

c) and other clauses modifying adjectives:

He is afraid that I will come.

The puppies are black just like my dog is.

Note, however, that we do not code phrases similar to the ones above, except that they do not contain a verb, as a 7 V-C unit. These phrases without berbs are closer in structure and function to prepositional phrases. They are thus counted as expanding elements, but not full clauses.

Do not code as clauses:

She is bigger than me. (Phrase does not contain a verb.)
He has teeth like an elephant." "
He runs as fast as me. " "
They're black like my dog. " "

CODE: 8 = Verbal element in phrase or clause acting as object of a preposition

He's waiting for him to move down.
prep. complex verbal object of prep.

We waited for a heliocopter to take us.
prep. complex verbal object of prep.

The tree is for climbing.
prep. complex verbal object of prep.

That's a drawer for when you need it.
prep. clause acting as object of prep.

He never passes a lady without tipping his hat.
prep. complex verbal object of prep.

I didn't do anything except (to) go to school.
prep. complex verbal object of prep.

Special note: When coding the modification and environment of 8-function V-C units, consider the unit being coded to be the entire prepositional phrase - not just the object of the preposition. Thus, what will be coded is what the entire prepositional phrase modifies and where the entire prepositional phrase comes in the child's response.

CODE: 9 - Verbal element in participial or infinitive adjective phrase

These phrases identify or describe a noun in the sentence.

That's a little girl climbing up the tree.
I'm a detective following you home.
This is a house to climb on.
The boy carrying the ball fell down.
They got a long way to fall.
That's a thing for to hold. (Note that both subject and object are deleted in this phrase)

These adjective phrases should always follow the nouns which they modify. As mentioned earlier, they are sometimes hard to distinguish from other constructions containing a participial form of the verb. (See Problems with Participles, pp. 21 - 24.)

CODE: 0 (zero) = Verbal element in participial or infinitive adverbial phrase.

These phrases modify the verb, or the whole sentence.

He'll come back tomorrow to get this.
A policeman is coming to take him in the jail.
I like to go swimming.
(to go for the purpose of swimming.)

These adverbial phrases are sometimes difficult to distinguish from

adjective phrases, when there is an implied subject of the phrase. For example:

Knowing she was hungry, the mother gave her lunch.

Although the phrase modifies "the mother" in one sense, it also describes the reason for the action (giving) and thus functions as an adverb. This type of phrase can be said to modify the whole sentence. See additional examples below.

They are still there, trying to fix the wagon.
They are right there, fixing to go home.

In the above sentence, "they" is the implied subject, but the phrase acts adverbially to modify the whole sentence.

CODE: A = Verbal element in "verb appositive"

Verb phrases which form the following specialized type of appositive will be given an A function code:

That is what the fish do, eat flies.

That, be in the fishbowl, is what fish are supposed to do.

That is what he is doing, reading a book.

That is what the children have done, ruined the picture.

Note that this type of appositive can stand either after that, the demonstrative pronoun it restates, or at the end of the sentence. The pronoun, "that", stands for the verb phrase which was moved to the front of the sentence, probably for stylistic reasons. What . . . doing is also a type of pro-form, standing for the same thing but are variously ordered, probably for stylistic reasons.

He is reading a book. (normal sentence order)
VP

Reading a book is what he is doing. (VP moved to the front of the sentence)
VP pro-form for VP

That is what he is doing, reading a book. (verb appositive-actual VP moved back to end of sentence but clearly emphasized)

Note also the close similarity of these verb appositive sentences

to questions and their answers.

Q: What are you doing?

A: Reading a book . . . (That's what I'm doing.)

As can be seen from the examples above, verb appositives have no introducers. The form of the verb used is always the verb stem (plus -ing for progressive tenses and the past perfect form of the verb for perfect tenses.) Regular past or present or future tense plus any other modal or auxiliary verbs are included with the pro-form, do. This is exactly the same procedure as is employed with question asking and answering.

In catenative verb sentences the verb appositive may contain both the main verb and the verb of the complement or just the verb phrase of the complement. (Note that the meaning of the two variations is slightly different.)

That's what we asked Charlie to do, kiss Yvonne.

That's what we did, ask Charlie to kiss Yvonne.

Verb appositives may occur in passive-type sentences also. But, as can be seen in the example below, the verb appositive itself stays in the active voice.

That is what Herman was told to do (by the judge), stop driving.

VI. INTRODUCER (when applicable)

CODE: 0 (zero) if this does not apply. Main verbs (function 4), parenthetical verbs (function 3), and verbal appositives (function A) do not take introducers and thus they are the V-C units for which this column does not apply. All dependent structures (everything other than functions 3, 4 and A) require a code in the introducer column. The code will be a letter if the introducer is present, or a number if it is deleted.

LETTER CODES FOR INTRODUCERS WHICH ARE PRESENT

Note that the letter code for an introducer may be different for the same word depending on what type of clause it introduces. So be sure to select the introducer code from the correct clause-type below.

a) Adverbial clauses (Function of verb is coded 1 in column 14)

CODE:
A = because
B = for
C = if
D = while
E = when
F = before
G = after
H = like
I = so, so that
J = where
K = until
M = unless
N = although
S = in order that

b) Relative clauses (function of verb is coded 2 in column 14)

CODE:
A = who
B = that
C = which
D = what
F = like
G = where
H = when
I = why

c) Adjective modifying clauses (function of verb is coded 7 in column 14)

CODE:
A = Than
B = that
C = as

d) All Subject or Object Constituent Clauses (functions 5 or 6 in col. 14) and All Verbal Phrases (functions 8, 9, or 0 in col. 14)

CODE:
A = wh-word: (what, where, when, which, why, who, how)
B = that
C = to
D = -ing (present participle ending)
E = "quotes" (Quotation marks around a direct quote)
F = -en (refers to all past participles - regular or irregular)
G = possessive
J = if
L = like
M = because
N = for . . . to (subject of phrase comes between for and to - for him to go . . .)
Q = wh-word + to (as in . . . how to do it, . . . who to call, . . . when to come)
S = for
U = to + ing (get them to going)
V = for to (dialect introducer, . . . waiting for to go. For is superfluous)
W = adverb introducing clause/phrase acting as constituent or obj. of prep.
Y = auxiliary reversal in indirect yes/no questions (Do you mean did I see it?)

NUMBER CODES FOR INTRODUCERS WHICH HAVE BEEN DELETED

1 = obligatory deletion of introducer with some catenative verbs

Some catenative verbs (hear, see, watch, feel, make, let) use the simple infinitive form of the verb (with to deleted) plus a subject element.

Will you let me ( ) smoke?
I heard him ( ) come in.
We felt the house ( ) shake.
You made your sister ( ) cry.

2 = optional deletion of introducer because of compound dependent structures

I like him 'cause he's my friend and ('cause) he's strong.

Do you know how to cook and (how to) sew?

3 = optional deletion of introducer due to answer to a question

What do you like to do?

(To) Play games. (To do) Nothing.

5 = optional deletion of introducer for clauses (usually deletion of relative pronoun when it is an object in the clause, or deletion of that following verbs such as know, see, tell, and say.)

I know ( ) he will come. (that - deleted)
I told you ( ) I'd be ready.
He says ( ) he'll break the house down.
I see ( ) you're here on time.
That's all ( ) I see.

The last example involves a relative clause; in such a sentence ordinarily the relative pronoun serves both as introducer to the clause and as direct object of the verb in the clause (see). (The deletion of the relative pronoun in its introducer role is recognized in the coding of this column; the deletion of the relative pronoun in its direct object role is recognized in the deletion type coding -- see page 34.

6 = no introducer because of question asking clarification

What do you like to do?

In school? (Do you mean what do I like to do in school)?

7 = optional deletion of introducer for dependent phrases (following main verbs such as come, go, see, and complex prepositional phrases following negatives.)

Go (to) get us.
He saw them steal (-ing) the motorcycle.
I didn't do anything except (to) go to school.

9 = nonstandard introducer deletion

This includes all other deletions of introducers.

He want (to) go home.
My daddy came (to) pick me up.

VII. COORDINATION

CODE: 0 (zero) = Verb-complement unit is not coordinated

1 = V-C unit is first of 2 or more dependent or independent structures of equal status

2 = V-C unit is second of 2 or more structures of equal status

3 = V-C unit is third of three or more structures of equal status

Etc.

Note that V-C units must be of equal status for coordination: i.e., a main verb V-C and a dependent verb V-C may not be coordinated. Similarly, a relative clause V-C unit and an adverbial clause V-C unit may not be coordinated.

Coordinated independent clauses are treated as V-C units in separate sentences; i.e., they are given different sentence numbers. But they are still coded as coordinated.

I played blocks (1st sent.) and then I ate lunch. (2nd sent.)

Independent clauses - constituent or modifying clauses can be coordinated as well as independent clauses can. Frequent occurrences of coordination of dependent V-C patterns is that of the complements in quotations (pattern D) and with catenative verbs (pattern Q).

He tried (Q) to push and pull it.
(coordinated complements)

He said, "Get out the way. I'm fixing to slide."

coordinated complements

RELATED ENVIRONMENT CODING NOTES FOR DEPENDENT V-C UNITS

If these coordinated complements are connected by and (and then, etc.),
the environment of the 2nd unit is G.
If connected by but, the environment of the 2nd is I.
If connected by or, the environment of the 2nd is K.
And if not connected by any conjunction, as in the second example above,
the environment of the 2nd complement is ∅.

Coordination is often difficult to determine because of several factors:

a) Some children habitually begin sentences with and or then. Presnece of coordinating conjunctions cannot, then, be used to distinguish true coordinated structures from uncoordinated ones.

b) Conversely, children may delete the coordinating conjunction from connected ideas, and signal connection by intonation patterns and/or rate of speech. For example, the following sentences were coded as coordinated though they were not connected by conjunctions. They were spoken rapidly, and with level or slightly rising intonation. (Normally, sentences end with falling intonation.)

That's a man. That's a lady.
That's a dog. That's a lion on it.
That's water. That's a moon.

Some other clues: The uncoordinated sentences are usually marked by falling intonation at the end. In these interviews, they are often separated by rather long pauses (marked by * below), or by a statement from the interviewer. Coordinated sentences, on the other hand, are usually not separated by long pauses, or interviewer's statements (though the interviewer may interrupt with a short comment - yeah, oh, um hum, etc.). In addition, coordinated sentences or structures are discussing the same, or related topics.

		Coordination
Int:	Yeah. Then what?	
	And then he spits. *	0
Int:	Um hum.	
	And * the little boy won't get up.	** 0

	Coordination
And then he say "I'm getting on this"	1
And then he say "I'm not."	2

c) Note that so can be either a coordinating or subordinating conjunction. If the clause following so is logically dependent upon the other clause, so will be considered to be acting as a subordinating conjunction and introducing an adverbial clause.

He climb up that ladder so he can get into that house.
subord. conj. + adverbial clause

Julia comes home. So Cory says he been bad. So then he cry.
(Coordinated independent clauses)

VIII. MODIFICATION

Two separate pieces of information pertaining to modification will be coded -- (a) The specific thing modified and (b) the function of the unit of which the specific thing modified is a part.

A. Specific Thing Modified

A unit contained within another unit serves one of two functions-- it either modifies a constituent in the larger unit, or it is a a constituent of that unit. When a unit modifies a constituent of a V-C unit, it is coded in column 19 as 1-9, depending on what is modified. If it does not modify a constituent, but rather is a constituent, a 0 (zero) is coded in column 19.

CODE: 0 (zero) = unit being coded in a constituent, a parenthetical unit, or a verb appositive

CODE: 1 = Modifies Adverb (Adverbial clauses or phrases may modify an adverb)

He was so fat that he could hardly walk.

Winter came earlier than it ever did before.

He was too tired to care.

CODE: 2 = Modifies Noun whose function can't be determined

This is coded when the noun is in a V-C pattern which has been coded R. The function of such a noun can't be determined, (i.e., whether object, subject, etc.). Adjective phrases and clauses can modify a noun.

CODE: 4 = Modifies Verb (Adverbial phrases and clauses can modify the verb)

Clauses and phrases which modify the verb are very difficult to distinguish from those which modify the whole sentence (code 7). A general guide would be to doce those clauses and phrases as 4, when the main verb would be meaningless, or have an entirely different meaning if the clause or phrase were omitted:

He acts as if he were frightened.

I'll go only if you will.

And that goes right there, where it belongs.

Acts, and go, here would mean entirely different things without the adverbial clause modifying them. The clause or phrase, then, is essential to the meaning of the main verb.

Code clauses and phrases as modifying the sentence (code 7) when they do not change the meaning of the main verb, and/or they depend on other elements in the main clause for meaning.

He asked to borrow my car because his was out of gas.

The meaning of asked has not changed, and the clause depends on the object "my car" for meaning. This decision must often be made on the basis of context, intonation, and intuition about the intent of the statement. (See description of code 7 for more examples.)

CODE: 5 = Modifies Subject (Adjective phrases, relative clauses may modify the subject.)

The man carrying the ball fell down.

The bird that we found had fallen out of its nest.

The girl who climbed the tree was brave.

Note that with a passive, a presentative, an expletive construction and some questions, as adjective phrase or relative clause modifying the subject will occur last (or late) in the sentence, since the normal sentence order is inverted.

There is a man (S) who has a dog (rel. cl.). (presentative)

The boy (DO) was hit by a man (S) carrying an umbrella (adj. phr.). (passive)

CODE: 6 = modifies a noun complement . . . or adjective complement . . . or direct object

That's a little girl climbing up the tree.

I'm a detective following you home.

He s afraid to come home.

I have a dog that bites people.

He hit the girl who ran home.

CODE: 7 = modifies the whole sentence

The meaning of the main verb is not changed, or made meaningless by leaving out the adverbial clause or phrase. The adverbial clause or phrase may depend on elements in the main clause other than the verb for meaning.

When I play with him, he won't bite me.

He kills cats because he hates them.

Everytime I come home, channel 44 be on.

If it have a winder on it, I'll wind it and let it walk.

This code is also scored when a clause or phrase modifies the whole clause in which it is embedded. The 7 code is used then, when the whole unit of the next higher order is modified--whether that unit is the whole sentence, or a whole clause.

He was mad because I wasn't home when he came home.

CODE: 8 = modifies adjective (that is not a complement)

Adverb phrases and clauses can modify an adjective. Code these as 8 when they modify adjectives, except when those adjectives are complements of linking and copular verbs (See V-C patterns B, p. 7 and I, p. 9 for examples.) Phrases and clauses modifying adjective complements are coded as 6.

CODE: 9 = modifies object of a preposition

Adjective phrases and clauses modify objects of prepositions.

Somebody else move into that old house we was in.

He threw it at the boy sitting by the tree.

CODE: A = modifies noun in adverbial noun phrase

The minute I get back I'll call you.
adv. n.p. rel. cl.

He gets off nights that are too cold to work.
adv. n.p. rel. cl.

Adverbial noun phrases are noun phrases which function as adverbs. They usually indicate time or amount. In the examples above, the adverbial noun phrases "the minute," and "nights" are modified by relative clauses.

B. Function of larger unit that contains the V-C unit being coded

The purpose of column 20 is to be able to characterize the function of the clause of V-C unit in which the unit being coded is contained. Thus, we can indicate when we have embedded clauses, phrases and constituent units.

CODE: 0 = does not apply Unit being coded is a main verb unit (function 4), and it is not contained within or does not modify another unit).

CODE: 1 = modifies, or is constituent of whole main verb V-C unit; or modifies simple constituent or simple modifier in the main verb unit.

Examples (not exhaustive)

Columns	
19	20
7	1

[If he have a thing in the back, I turn him on.]

7: adverbial clause modifies the whole main verb unit (sentence)
1: unit being coded (adv. cl.) modifies main verb unit.

5	1

[The thing that you hit is right there.]

5: noun clause modifies subject, "thing"
1: unit being coded modifies the subject constituent of the main verb unit.

Columns 19	20	
7	1	[I watch it when I go home.]
		7: adverbial clause modifies whole sentence 1: unit being coded (adv. cl.) modifies whole sent. of main verb unit.
0	1	[He's a vampire, I guess.]
		0: is a parenthetical unit, does not modify. 1: parenthetical unit occurs as part of the main verb unit.
6	1	[He is a person who likes to eat.]
		6: relative clause modifies subject complement 1: unit being coded (rel. cl.) modifies simple constituent (SComp) of main verb unit.

CODE: 2 = modifies or is constituent of adverbial clause

6	2	They didn't find the way out [when they was getting ready to go.]
		6: "to go" modifies adjective complement "ready." ("getting" is a linking verb). 2: "to go," unit being coded, modifies "ready", an element in an adverbial clause ("when they was . . . .")
6	2	[If he have a winder that turns him on,] I turn him on.
		6: rel. clause modifies DO, "winder" 2: rel. clause modifies "winder" which is an element in an adverbial clause (if he have a . . .)
0	2	That belongs there, [so he can get the soldiers to going.]
		0: "to going" is a complement of a catenative verb, "to get." It is a constituent, and does not modify. 2: It is a constituent of a larger unit, the adverbial clause ("so he . . . . ")

Columns

19 20

0 2 Bullet kills cats [because it like to kill them.]

0: "to kill" is the complement of the cat. verb "like" -- thus a constituent.
2: It is a constituent (and doesn't modify) of a longer unit, the adverbial clause ("because . . .")

CODE: 3 = modifies or is constituent of relative clause

7 3 One of those things is right there, [that you hit when you have one of them in that.]

7: adv. clause ("when you have . . . ") modifies whole relative clause sentence ("that you hit . . . .") which is the next higher order unit.
3: unit being coded (adv. cl.) modifies element in the relative clause (or the whole clause in this case).

6 3 The minute [that they're through messing,] we're gonna paint the house.

6: "messing" is an adverbial participial phrase and modifies the adj. complement "through".
3: "through" is a constituent of the relative clause ("that they're . . . ")

CODE: 5 modifies or is constituent of V-C unit acting as subject

7 5 [That he got married when he did]was a surprise.

7: "when he did" - adv. clause modifying whole higher order sentence unit, the noun clause (that he got married).
5: the adverbial clause (unit being coded) modifies the V-C unit acting as subject.

A more common construction that is found is the expletive it in the normal subject position with the real subject (clause) at the end of the sentence. (See p. 64 for a fuller discussion of expletive constructions.) With the expletive it, the introducer of the noun clause may be omitted.

7 5 It was good [(that) he left before she saw him.]
[(That) he left before she saw him] was good.

7: "before she saw him" - adverbial cl. modifying

Columns

19 20

whole sentence unit - the noun clause.
5: adv. clause modifies noun clause acting as subject (that he left)

6 5 It wasn't clear who gave the order to shoot.
Who gave the order to shoot was not clear.

6: "to shoot" - adjective infinitive phrase modifying "order", the DO in the subject clause.
5: "Order" is the direct object, a constituent of the noun clause acting as subject.

CODE: 6 = modifies or is constituent of V-C unit acting as complement or DO

This occurs most frequently when there is a direct quote acting as a complement of the main verb.

6 6 He say, ["I'm a detective following you all."]

6: "following you all" - adjective participial phrase modifying "detective," the subject complement within the DO clause.
6: "detective" - is a constituent of the higher order unit acting as DO ("I'm a detective) of the main verb.

7 6 He say, ["You go back up there until you get up."]

7: "until you get up" - adverbial clause modifying whole sentence unit (the clause within the quotes)
6: the independent clause within the quotes is acting as the DO of the main verb.

0 6 He going to try [to see if something in there.]

0: "if something -- in there" - clause acting as DO of verb, "to see," it is a constituent of a unit, i.e., it does not modify.
6: "to see" is a unit acting as constituent - DO of catenative verb, "try". Unit being coded (if . . .) is constituent of larger unit acting as complement.

CODE: 7 = modifies or is constituent of adjective clause or adjective phrase

Columns

19 20

7 7 I saw the boy [eating ice cream while carrying the ball.]

7: "while carrying . . ." = adverbial phrase modifying the whole higher sentence unit, the adjective phrase ("eating. . .).
7: unit being coded modifies the adjective phrase ("eating ice cream").

6 7 A lion is there [looking at that girl sleeping.]

6: "sleeping" is an adjective participial modifying "girl," which is the DO of the verb "look at."
7: "girl" is an element in the adjective phrase ("looking at . . .) which modifies the subject "lion."

CODE: 8 = modifies or is constituent of V-C unit acting as object of a preposition

7 8 He worried about [leaving the house empty when he goes on vacation.]

7: the adverbial clause ("when he goes . . .") modifies the whole higher sentence unit, the V-C unit beginning with "leaving . . .".
8: the V-C unit ("leaving the house . . .") is acting as object of the preposition "about."

CODE: 9 = modifies or is constituent of V-C unit acting as adverbial phrase

4 9 I stayed at the airport [waiting for another heliocopter to take us.]

4: The prepositional phrase containing a verbal object "for another heliocopter to take us" modifies the verb "waiting."
9: The unit being coded ("for . . . us") modifies the adverbial participial phrase "waiting."

0 9 That lion going to go [tell somebody that that lady is dead.]

Columns

19 20

0: "that that ... ." - noun clause acting as direct object of "tell;" is constituent, doesn't modify.
9: Unit being coded (noun clause) is constituent of the adverbial phrase, "tell somebody."

IX. ENVIRONMENT

This category relates the V-C unit being coded to its immediate context - the material which immediately preceded it in the interview. Both the interviewer's speech and the child's speech are taken into account when coding the environment of a V-C unit.

CODE: A = exact or nearly exact repetition of an earlier comment

The unit occurs in response to an interruption or request to repeat by the interviewer; or a repetition of specifically requested part of a prior utterance.

CODE: B = 1st clause in response to question, request or command from the interviewer

This is one of the most frequent codes. For some children, most of the interview consists of responses to questions. It is important to note this particular code, since it should be consistent with the deletion - type 3, the understood parts of a previous question. Clauses with B-environment may be either the main verb unit (function 4), constituent units (function 5, 6), parenthetical units (function 3), or modifying units (functions 1, 2, 7, 8, 9, 0, A).

CODE: C = 1st clause following a content statement by interviewer

The child is responding to information in a comment by the interviewer. There is no question or command stated or implied.

Int: I'll have to watch that. (talking about cartoons)

Ch: It on channel 44.

Int: That's just about everybody's favorite.

Ch: Marie come over and watch it, too.

As with environments B and D, be careful to distinguish C-environment responses from those which actually are a continuation of a prior sentence or statement. It may be difficult to distinguish C-environments from D-environments since they may be very much alike in form. The main difference that we will recognize is that with C-environments, the child's next statement is a response to what was actually said by the experimenter, not just a continuation of the child's own comments.

CODE: D = 1st clause in response to a non-directive prompt

A non-directive prompt is a device used on conversation (and interviews) to encourage the other speaker to continue speaking. It really means, "Keep going, I'm still listening." These include comments such as: Yeah, um hum, OK, Oh I see, That's right, etc. Other types of non-directive prompt include repetition of the child's statement (or part of it), or comments like: "that's good," "you're doing find," "I do, too."

Int: Is it a little tiny dog?

Ch: A big one. (follows question, code-B)

Int: Oh, a big one.

Ch: He have puppies. (follows non-directive prompt, code D)

Sometimes these prompts are fairly long, and thus may be especially hard to distinguish from content statements. The general rule, again, is that if the child's response continues with what he was saying before, the interviewer's statement functioned as a non-directive prompt.

Ch: That's the boy's shadow.

Int: Yeah, you're right. I see that, now.

Ch: * * um and something up there by the tree.

The interviewer's statement functions as a non-directive prompt, after which the child completes his idea. Note that because of the long pause, the the intervening statement, the child's two statements are not coordinated.

CODE: F = 1st clause - initiated by the child

These are statements by the child which do not follow from his previous statements or from the interviewer's statements. They represent breaks in the topic of conversation (and are often the

results of looking out of the window).

(talking about walkie-talkies)

Int: Can you talk far away?

Ch: There's Miss Prince over there.

Int: What do you like to do in school?

Ch: Is that your car outside?

Int: What's happening in this picture.

Ch: Look at that. (pointing to kids outside)

To employ the following codes F - K, the two clauses that are conjoined must be of equal status - two main verbs, or two complements, or two adverbial clauses, etc.

CODE: F = non-initial - main clause following and

The non-initial clauses of two or more coordinated main clauses (sentences) are scored as environment F after the following coordinating conjunctions: And, then, and then, so, and so, so then.

The boy go (1) up there and then he come (2) down.

I went (1) to school and played (2) games.

CODE: G = non-initial - dependent clause or phrase following and

The non-initial clause(s) of two or more coordinated dependent clauses (or phrases) is scored as G after the following conjunctions: and, then, and then, so, and so, so then.

He said (m.v.) "Come (1) over and play (2) with me."

The dog, barking (1) and growling (2), chased the burglar.

CODE: H = non-initial - main clause following "but"

The non-initial clause(s) of two or more coordinated main clauses

is scored H following the conjunction "but."

The boy laughing$_{1}$, but he gonna fall$_{2}$ off.

I see$_{1}$ him but I don't know$_{2}$ what he's doing.

CODE: I = non-initial - dependent clause (or phrase) following "but"

The non-initial clause(s) of two or more coordinated dependent clauses or phrases is scored I following the conjunction "but."

The momma say, "You can play, but don't get dirty."

The story was about a lion who looked$_{1}$ mean, but was$_{2}$ really nice.

CODE: J = non-initial - main clause following "or"

The non-initial clause(s) of two or more coordinated main clauses is scored J following the conjunction "or."

That boy better come$_{1}$ down or he gonna fall$_{2}$.

You better put up$_{1}$ or shut up$_{2}$.

CODE: K = non-initial - dependent clause or phrase following "or"

The non-initial clause(s) of two or more coordinated dependent clauses or phrases is coded K, following the conjunction "or."

He wanted to ride$_{1}$ the horse or lead$_{2}$ it home.

Whether you win$_{1}$ or lose$_{2}$, you must play fair.

Note: In all cases, the conjunction must be present in the child's speech for a unit to be scored as following that conjunction. Thus, while two sentences (or units) may have been scored as coordinated in column 17, the second of those two units is not coded as following a conjunction unless that conjunction is there.

CODE: L = non-initial - first clause in new sentence following another sentence unit

When the child produces long sections of speech, he will often say more than one sentence in a response to one question or comment by the interviewer. The first clause of each successive non-initial sentence is coded L. (Non-initial clauses within these successive sentences are coded according to their immediate environment - is, what they follow within the sentence.)

When two sentences are coordinated with a conjunction, the non-initial (or new) sentence is coded F, H, or J; not L.

EXAMPLE: Int: What can you tell me about this picture?

Child: That boy is getting (1) up there first. ** um * and they was (2) at the park, and there was (3) no way out (4) of this. They didn't find (5) the way out when they was (6) getting (7) ready to go (8), so they just stayed (9) there until somebody let them out.

Environment codes:

Unit no. 1 - B
2 - L (not coordinated)
3 - F (coordinated, after and)
4 - L (1st clause, new sentence)
5 - P } (non-initial dependent clauses, see O & P below)
6 - O }
7 - F (coordinated, after so)
8 - P
9 - Q (non-initial, constituent, see Q below)

CODE: M = non-initial - main clause after dependent clause, phrase, constituent, or parenthetical unit

This occurs when there is an introductory dependent clause or phrase which makes the main clause not initial.

Tiptoeing quietly, she sneaked out of the house.
initial, dep, phr. non-initial, main clause

When he needed money, he wrote his parents.
initial, dep. clause non-initial main clause

This also occurs when the subject is a clause, which causes the main clause V-C unit to be non-initial.

That he studied hard was surprising to his parents.
init. constit. cl non-init. main verb clause

CODE: N = non-initial - dependent clause (or phrase) following a dependent clause (or phrase) and modifying something

I knew I would be late (1st) unless I hurried (2nd).

(second dependent clause modifies first dep. clause (a constituent))

See, when he gets tired, he cries.
1st 2nd

(second unit, the dependent clause, follows the first unit, the parenthetical; the second modifies the main verb unit)

If he have a winder that turns him on, I turn him on.
1st 2nd

(second dependent clause modifies element in the first)

CODE: Ø = not initial - dependent clause or phrase (or parenthetical unit) following a dependent clause (or phrase or parenthetical unit) and acting as constituent

He said, "come. I'll show you."
1st 2nd

When I tried to find him, I couldn't.
1st 2nd

They couldn't get out when they wanted to go.
1st 2nd

The second clause or phrase above is a dependent phrase following a dependent clause, and acting as a constituent of an element in the sentence

CODE: P = not initial - dependent phrase or clause following the main verb unit, and modifying an element in the sentence

They didn't come until the rain stopped.
main verb dep. clause

(dependent clause following the main verb unit and modifying the object of the preposition, "house.")

CODE: Q = not initial - dependent clause (or phrase or parenthetical unit) following the main verb unit, and acting as a constituent

He wanted to come home.
main. v. dep. phr. (constituent - DO)

She said, "Go back up there."
main.v. dep. clause (constituent - DO)

I said that he would come.
main v. dep. clause (constituent - DO)

That is what I want to do.
DO of "want," ∅ env.
SComp, constituent of S patt; Q env.

CODE: R = not initial - child answers his own question

What's that one? Oh, a boat.

What's he doing? Playing, I guess.

CODE: S = not initial - dependent clause, phrase, or constituent introducing another main verb unit connected to the previous main verb by and, but, or.

I'll go to the store, but when I call, you pick me up.

Though the dependent clause "when I call" follows the coordinating conjunction "but," it is not actually one of the two clauses conjoined since it is not of equal status with the first clause -- an independent main verb clause. Instead it intervenes between the two conjoined clauses of equal status -- the two main verb clauses. Note that this dependent clause may be moved to the end of the sentence and thus follow rather than precede the clause it modifies.

X. NEGATION

CODE: 1 = negative form is used

They don't like liver. (The verb is negative)

He don't want to go.

He wants nothing except money. (negative pronoun)

CODE: 2 = multiple negations are used

The verb is negated, and other sentence elements are also put in their negative form.

He don't know nothing.

I ain't never been there.

I don't want no more.

Nobody don't never sit at those desks.

When one of two negative elements involved in multiple negation is in the main verb unit, and the other is in a dependent verb unit (such as the complement), the negation is marked on the main verb unit only.

He don't want nobody to go home.
main v.

XI. ATTACHMENT

If the function of the unit being coded is not 4 (column 14), (is not a main verb), the unit must modify something, or be a constituent or something.

Is the unit being coded attached to the unit with which it belongs?

CODE: 1 = yes

I couldn't come because I was sick.
— attached to unit which it modifies

CODE: 2 = no

Most unattached V-C units occur in answer to questions.

Int: What do you like to do best?

Work. (I like to work - "work" is unattached DO complement of "like")

Int: When do you watch it?

When I come home from school. (I watch it when I ... - adverbial clause, unattached)

CODE: 3 = no, because interviewer requested specific part to be repeated

If the child produces an attached construction at first, and the interviewer requests a repetition of part of it, the child has been pushed by the interviewer to make the deletion which results in the unit being unattached. This is different from the situation where he makes his own decision about an optional deletion after a question.

Int: When do you watch it?

I watch cartoons after I come home from school.

Int: When?

After school. (this is now unattached)

XII. PART OF INTERVIEW

0 = warm-up questions 3 = 3rd picture 6 = 6th picture

1 = 1st picture 4 = 4th picture

2 = 2nd picture 5 = 5th picture

The beginning of each section of the interview is clearly indicated in the transcripts.

XIII. STEREOTYPED RESPONSE

Some responses occur with such great frequency that they can be said to be stereotyped responses in this situation. The three most frequent, which we are labelling as stereotyped, are:

I don't know. That's all. Nothing.

Is the pattern stereotyped, (i.e., is it "I don't know", "That's all", or "Nothing")?

CODE: 1 = yes

CODE: 0 = no

This category was necessary in order to be able to separate out these responses which might otherwise inflate the frequency of those patterns, (types A, S, & D).

Note that there are some variations of the above stereotyped responses. We will not mark as stereotyped any variation which involves another V-C unit, as in That's all I see. But we will mark as stereotyped all other slight modifications of these answers: That's all of it, Nothing else, etc.

If any other patterned response occurs with some frequency in transcripts, additions will be made to this list.

XIV. INTERPOLATED MATERIAL

CODE: 0 (zero) = does not apply

CODE: 1 = yes, material is interpolated

Material is interpolated when:

a) a question or comment is inserted in a list, or in other discontinuous material.

Int: Tell me what you see here.

A boat, some toys, and a horse, a soldier, a paint
What's this thing?
and a giraffe, a hammer thing, (etc.)

b) a comment (sentence) inserted within another sentence. Since these are separate sentences and have a different main verb from the sentences which contain them, this category allows us to distinguish these inserted sentences from normal ones.

When I was looking for him, I had a dog named Tina,
I tripped over a rock.

These sentences, though they are somewhat parenthetical in nature, will be treated in this coding system as independent units with this tag for interpolation. The parenthetical unit function (3) will be reserved for units which only serve to direct attention, not to provide information about the speaker.

XV. STRUCTURAL DESCRIPTION

Since the sentence patterns coded in column 9 are in the form of ordinary declarative structures, they do not always represent the form (surface structure) of the actual utterances. The purpose of this structural description section is to retrieve this additional information about what the child actually said.

For each column, a number code means that the pattern being coded has the structure reserved for that column; a blank in the column means that the pattern does not have that structure.

Column 31: Imperative (Code 1 if present, blank if not)

If the statement is a command in the imperative mood, score the imperative as present. The subject is usually deleted, but may be included for more emphasis.

Go to sleep.
Bring me that hammer.
You put those clothes away.

Also score as an imperative any question-like construction which is actually imperative in mood -- Why don't you close the door!
Will you close the door!

Column 32: Questions

(Leave blank, or code 1, 2, or 3 for each type of question)

1 = tag question

These are questions which ask for confirmation of a statement in either a yes or no form. They occur at the end of the statement. Regular, nonstandard, and the generalized "huh" tag questions are all indicated by a 1 in this column. The tags themselves are not given a separate V-C number, but are scored on the main clause unit which they follow.

You got a dog, didn't you?
He's asleep isn't he?
He's not asleep, is he?
You wearing a new dress, huh?

2 = yes/no question

These questions are stated so that the answer may be either yes or no.

Are you going to the movie?
Will you be home today?
Did you mean this one?

There is a construction with will which looks like a yes/no question, but which actually functions as an imperative, not a question.

Will you shut up.
Will you go to sleep.

In sentences like those above, the code for an imperative ((1) in column 31) should be used rather than this code for the yes/no question.

3 = wh-question

This question begins with a "wh-word": who, where, which, when, why, what, how. (There are seven of them.) The required answer is one which replaces the "wh-word" with some information.

How are you? I am fine.
Who is she? She's my sister.
When will you leave? I'll leave at 3 o'clock.

There is a construction which looks like a wh-question, but which is actually more like an imperative. Note that these "Why-n't" questions function like a command or a suggestion.

Why don't you close the window. (meaning "Please close the window." or "Will you close the window?")

Why don't you shut up?

The verbal response called for would be exactly the type of response one would get to a command.

"Okay." (I will) or "No, I don't want to."

Because this construction is not a request for specific information like the typical wh-questions illustrated above, such "Why-n't" questions will be coded as imperatives.

Column 33: Subjunctive - "let"

CODE: 1 = present

CODE: blank = not present

The subjunctive construction occurs when let is used in suggestions, commands or dares with noun or pronoun. Let, here functions as an auxilliary and only the main verb is coded. The use of let signals that the main verb is in its subjunctive form. The subject in these sentences (us, 's) is in the objective case, but is nonetheless coded as the subject.

Let's get out of here. Let us pray. Let's see.
Let him make one false move and he'll get it.

It is important to note that there is another very different use of let which looks the same as the above auxilliary use - when let means to allow or to permit.

Let me help.
Will you let me smoke?
Let me go.

In each of these "allow" or "permit" can be substituted for "let" without a significant change in meaning. Let, here, functions as the main verb (catenative - Q-pattern) and it is coded. It is

followed by the infinitive phrase, with "to" deleted. (This is an obligatory deletion.) Sometimes the entire infinitive is deleted:

Let me up. (Let me ~~to~~ (get) up.)
Let the dog in. (Let the dog ~~to~~ (come) in.)

Even when the infinitive is deleted, we will code 2 V-C units: "Let" (main verb) + infinitive complement. This complement is clearly an understood part of the sentence, and actually, half the verb is present - the preposition (in, up) with which the infinitive is combined.

Column 34: Presentative

CODE: 1 = present

CODE: blank = not present

These statements function to point out something to the listener. They seem both to identify the object and locate it. The normal sentence order is changed so that the locative adverb (here, there) appears first, the verb second, and the subject is last. In coding, we change the sentence back to normal word order so that we obtain either an H pattern ("The ____ is here/there.") or an A-pattern (A _____ goes here/there.)

Sentences with demonstrative pronouns (this, that, such, etc.) in sentence-initial position will NOT be classed as presentatives, since the demonstrative is the true subject of the sentence, and there is no inversion of constituents.

Pattern A: There goes Miss Price.
Here comes Santa Claus. standard form

There go the man.
Here go a guitar. Black English form

Pattern H: There's a lion.
Here is the bear.

Not Presentative

Pattern S: That's a lion.
Those are toys. (Demonstrative pronoun is the subject of the sentences)

We have noticed that the Black-English form of the presentative is closer in meaning to the standard pattern H; go is more "stative" than "active." But it is closer in form to the standard pattern-A, and will code according to its form.

Note that we will not code structures like "There they were, sitting on the fence . . ." as a presentative, since the subject-verb order is not inverted.

(See under Column 36 for the difference between presentative and expletive uses of there and here.)

Column 35: Passive

CODE: 1 = present

CODE: blank - not present

Since we coded all patterns as if they were active voice, this section retrieves the information about those which were actually passive. (The subject "receives" rather than "performs" the action of the verb.) Both normal and truncated passives are coded here. (See pp. 5, 21 - 24 for some examples.)

Column 36: Inversion with Expletive

CODE: 1 = present

CODE: blank = not present

Expletive means "filler". There are two expletives: it and there. They both serve to fill the space of the subject in front of the verb, pending the arrival of the real subject which comes after the verb. They developed because a) English speakers are not comfortable with long phrase or clause subjects at the beginning of sentences, and b) we like to put a subject before the verb. So we compromise with the expletive filling the place of the real subject.

a) Expletive-It

"It" takes the place of the real subject of the sentence, which comes later. The real subject is normally an infinitive phrase, or a noun clause. The sentence pattern is inverted to the following order: It - $verb_c$ + complement + subject.

The real subjects are underlines below.

1. It is hard to explain his behavior.
2. It is fun to go to the beach.
3. It is impossible to tell him anything.
4. It's important that you write him today.

A good test for checking an expletive - "it" is to ask what? before the verb. The answer should be the phrase or clause which is the real subject.

1. What is hard? To explain his behavior (is hard).
2. What is fun? To go to the beach (is fun).
3. What is impossible? To tell him anything (is impossible).
4. What is important? That you write him today (is important).

This test will distinguish expletives from two other "it" constructions:

1) the impersonal - "it", used mostly to refer to time and to the weather. "It is meaningless, except to act as the subject of the sentence.

It was raining.	How is it going?
It is five o'clock.	It looks bad for Tom.
It snowed last night.	Where does it hurt?

When you ask what? before the verb, the only answer that could make sense with reference to the sentence is the "it," which must be the subject of the sentence.

What was raining? It was raining.
What snowed last night? It snowed last night.
What is going? It is going (how),
What looks bad for Tom? It looks bad for Tom.

2) the situation - "it", which points to some noun not well enough identified to give it a personal pronoun. Again, like the impersonal-it and contrary to the expletive-it, the situation-it functions as the real subject of the sentence.

It was Jimmy who started the trouble.
It is a long way home.
It was the wind that slammed the door.

This construction serves to emphasize the subject complement (Jimmy, a long way, the wind). But when you apply the what? question test before the verb, "it" is still the real subject of the sentence. For example: What was Jimmy? If "it" were functioning as an expletive instead of a "situation" pronoun, the sensible answer would be: Who started the trouble (was Jimmy.) But this doesn't work. First, it doesn't make sense; and second, the clause is a relative clause which can't be a subject. (Only noun clauses can function this way.) Instead, the only sensible answer is: It was Jimmy, so "it" is the real subject.

b) Expletive-"There"

The other type of expletive is the expletive-"there." Like the expletive-"it," expletive-"there" takes the place of the real subject which occurs later in the sentence, after the verb. The sentence pattern is inverted: there + verb + subject + modifier

or complement - (Note the difference in sentence order between "it" and "there" expletives.)

There are two tomatoes on the vine.
There are six bananas left.

With the expletive-"there," the what? question test doesn't always work quite so well as with expletive-"it." But with the examples above, the what? question would produce:

What are one the vine? Two tomatoes are on the vine.
What are left? Six bananas are left.

There is another way to accomplish the same test: try to put the noun (or pronoun) which immediately follows the verb in front of the verb. That is, re-invert the pattern back to normal word order. The expletive-"there" must be dropped.

There is good sailing ahead. = (Good sailing is ahead.)

There are six bananas left. = (Six bananas are left.)

Just as the expletive-"it" is distinguished from the impersonal and situation-"it," there is a "situation-there" which may be distinguished from the expletive-"there." The subject and verb appear to be inverted with this construction, but there is one difference that distinguished these "situation-there" sentences from expletives:

Once there was a beautiful princess.
I dreamed there was a big old house.
He's had every chance there is.
We went to a place where there were craters.

These constructions, like the expletives, state the existence of something. But with "expletive-there," something else in the sentence may replace the "there" in the subject position. With the "situation (or "existence")-there", there is no other element to function as the subject. We are therefore coding "there" as the subject, just as the situation-"it" and impersonal-"it" are subjects.

XVI. IDENTIFICATION DATA

1 = Pretest

2 = Posttest

Age/SES/City

1 = Richmond

Age/SES/ City

2 = Berkeley

3 = Moraga

Treatment

1 = Sentence

2 = Vocabulary

3 = Control

IBM Card Number

Begin with 004 through n, for both pretest and posttest. Each line on the coding sheet, (thus each V-C unit) represents a punched IBM card. These are numbered consecutively throughout.

Subject ID Number

This is the three-digit number written on the top sheet of the transcript.

All identification data should be coded AFTER both the entire pretest and posttest transcripts for each child are finished. This is to try to avoid biasing the way the transcripts are coded. (Also, if corrections have to be made which add or delete V-C units, it saves re-numbering columns 74-76, too.)

PICTURE INTERVIEW CODING MANUAL

PART II: NOUN PHRASES

Table of Contents

Column	Scoring Code	Description	Manual Page Number
1-3	001 through n	V-C unit number in transcript	1
4-6	001 through n	Sentence number in transcript	1
7-9	001 through n	Noun Phrase number in transcript	1
10-11	01 through n	Noun Phrase part number in t	2
12-16	Type of Noun Phrase		3
12	1 = applies, leave blank if does not	Adverbial Noun Phrase	3
13	" "	Simple Constituent Noun Phrase	4
14	" "	Simple Prepositional Noun Phrase	4
15	" "	Appositional Noun Phrase	5
16	" "	Coordinate Noun Phrase or NP Parts	5
18-32	Pre and Post Head Noun Slots Filled		6
18		N-6: Predeterminer	7
19		N-5: Article	7
20		N-5: Other Det. (Dem., Ind., Adj., Poss.)	7
21		N-4: Numerals	8
22		N-3: Specifiers, Ordinals, Superlatives	9
23		N-2: Attributive Adjectives	9
24		N-1: Noun Modifiers of Head Nouns	10
25		Head Noun	10
26		N+1: Descriptive Prep. Phrase, Reflexive Appositive, and Other Appositive Phrase	12
27		N+2: Locative Post-noun Modifier	13
28		N+3: Locative Prep. Phrase (post-noun)	13
29		N+4: Descr. Rel. Clauses and Participial and Infinitive Phrases, Interp. Sent.	14
30		N+5: Pronominal Appositive	14
31		N+6: Post-noun: all, both, else	15
32		Adjective or Adverb Comp. of Subj. or Ob.	15

Column	Scoring Code	Description	Manual Page Number
	blank = slot is not filled		16
	1 = filled with one word		16
	2 = filled with multi-word name, title, or number		16
	3 = filled with simply modified phrase: intensifiers, specifiers, repetition of adjs., adjs. modifying adjs.		16
	4 = filled with phrase where more complex modification possible (possessive, N-1, appositional, and prepositional phrases; also phrases or words modified by clauses, verbal phrases, or prepositional phrases)		17
	5 = filled with verbal phrase or clause		18
	6 = filled with a phrase, part of which is understood due to question, anaphora, etc.		18
	7 = filled with coordinated single word modifiers		18
	8 = filled with coordinated phrases or coordinated word(s) and phrase(s)		18
	9 = filled with word or phrase out of position, including single modifiers of coordinated nouns		19
34	Type of Head Noun		19
	blank = head noun is deleted		19
	A = common count (ball, pencil, etc.)		19
	B = common mass (milk, dirt, etc.)		20
	C = proper (Miss King, George, etc.)		20
	D = personal pronoun (I, me, you, it, he, him, she, her, they, them, we, us)		20
	E = possessive pronoun (mine, yours, etc.)		20
	F = reflexive pronoun (myself, herself, etc.)		21
	G = definite relative pronoun (who, which, that, etc.)		21
	H = demonstrative pronoun (this, that, these, those, etc.)		21
	I = indefinite pronoun (all, anyone, everything, etc.)		21
	J = interrogative or indefinite relative pronoun (who, what, etc.)		22
	K = reciprocal pronoun (each other, one another etc.)		22
	L = impersonal or situation it or existence there		22
	M = noun substitutes (here, best, etc.)		23
	N = "pants" type plural noun (pants, glasses, binoculars, etc.)		24
	P = state noun (sleep, dark, trouble, etc.)		24
	Q = all other noun types not classified above		24
36	Function of Simple, Non-Prepositional Constituent NP		25
	blank = does not apply		25
	1 = subject		25
	2 = direct object		25
	3 = indirect object		25
	4 = subject or object complement		25

Column	Scoring Code	Description	Manual Page Number
	6 = cannot determine function		25
	8 = direct object in truncated passive (agent deleted)		25
	9 = noun phrase of address (vocative)		25
37	Function of Adverbial Noun Phrase		26
	blank = does not apply		26
	4 = modifies adjective		26
	6 = cannot determine function		26
	7 = modifies verb		26
	8 = modifies sentence		26
	9 = modifies another adverb or element acting as an adverb, such as a prepositional phrase		26
38	Function of Prepositional Phrase		26
	blank = does not apply		26
	1 = modifies subject or appositive of subject		26
	2 = modifies direct object or its appositive		27
	3 = modifies indirect object or its appositive		27
	4 = modifies subject or object complement or their appositive		27
	5 = modifies object of preposition or its appositive		27
	6 = cannot determine function		27
	7 = modifies verb		27
	8 = functions as constituent - indirect object		27
	9 = functions as constituent - e.g. subject of object complement		27
	A = modifies adjective not the subject complement		28
	B = modifies sentence		28
	C = modifies a noun of address (vocative)		28
40	Function of Noun to which NP Stands in Apposition		28
	blank = does not apply		28
	1 = subject		28
	2 = direct object		28
	3 = indirect object		28
	4 = subject or object complement		28
	5 = object of preposition		28
	6 = cannot determine function		29
42	Function of V-C Unit Containing this Noun Phrase		29
	1 = verbal element in dependent adverbial clause		29
	2 = verbal element in relative clause		29
	3 = parenthetical verb		29
	4 = main verb of sentence		29
	5 = verbal element acting as subject constituent		29
	6 = verbal element acting as complement constituent or DO		29

Column	Scoring Code	Description	Manual Page Number
	7 =	verbal element in comparative or correlative clause	29
	8 =	verbal element in phrase acting as object of a preposition (gerundive or infinitive)	29
	9 =	verbal element in adjective phrase	29
	0 =	verbal element in adjective phrase	29
	A =	verb in apposition	29
	R =	V-C unit with R pattern	29
44		Environment of V-C Unit Containing this Noun Phrase	29
	A =	exact or nearly exact repetition of earlier comment	29
	B =	1st clause, after question, request, or command	29
	C =	1st clause, after content statement by interviewer	29
	D =	1st clause, after non-directive prompt by interviewer	29
	E =	1st clause, initiated by child	29
	F =	non-initial, main clause after and	29
	G =	non-initial, dependent clause (or phrase) after and	29
	H =	non-initial, main clause after but	29
	I =	non-initial, dependent clause (or phr) after but	29
	J =	non-initial, main clause after or	29
	K =	non-initial, dependent clause (or phr) after or	29
	L =	non-initial, 1st clause in new sentence, after another sentence	29
	M =	non-initial, main clause after dependent or constituent V-C unit	29
	N =	non-initial, dependent clause (or phr) after dependent or constituent V-C unit, and modifying something	29
	O =	non-initial, dependent clause (or phr) after dependent or constituent or parenthetical V-C unit, and acting as a constituent or parenthetical unit	29
	P =	non-initial, dependent clause (or phr) after main verb unit and modifying something	30
	Q =	non-initial, dependent clause (or phr) or parenthetical phrase after main verb unit and acting as a constituent	30
	R =	non-initial, child answers own question	30
	S =	non-initial, dependent clause of constituent introducing another main verb unit connected to the previous main verb by and, but, or or	30
46		Additional Descriptive Codes	30
	1 =	noun phrase is within stereotyped phrase or clause	30
	2 =	list noun	30
	3 =	idiomatic noun phrase	30

Column	Scoring Code	Description	Manual Page Number
47		Inversion with Interrogative NP's	30
		1 = inversion of verb and noun in tag of tag question	30
		2 = inversion of auxiliary verb and subject in yes/no question	30
		3 = change in order of any nouns in wh-question	30
		4 = change in order of subject and any other nouns in indirect or embedded questions	30
48		Subject Inversion with Presentative (Code 1 if applies)	30
49		Inversion of Object (and Agent) in Passive (Code 1 if applies)	31
50		Change in Order of Noun with Expletive (Code 1 if applies)	31
51		Other Miscellaneous Inversions	31
		1 = stylistic inversion	31
		2 = inversion with relative pronoun introducer	31
66		Part of Interview	31
		0 = warm up	31
		1 = picture #1	31
		2 = picture #2	31
		3 = picture #3	31
		4 = picture #4	31
		5 = picture #5	31
		6 = picture #6	31
68		Time of Interview	31
		1 = pretest, 2 = posttest	31
70		SES/Age	31
		1 = Richmond, 2 = Berkeley, 3 = Moraga	31
72		Treatment	31
		1 = sentence, 2 = vocabulary, 3 = control	31
74-76		Card Number	31
78-80		Subject ID Number	31

PICTURE INTERVIEW CODING MANUAL

PART II: NOUN PHRASES

I. Numbering Units

Verb-complement unit number

Sentence Unit number

These two sets of numbers will be already provided as a result of the previous scoring of the verb-complement units. The numbering of units on the noun phrase analysis must match the numbering on the verb-complement analysis. The same rules apply in the NP analysis about putting passives, questions, and other inverted structures into their simple declarative forms (subj. and verb and obj. or complement).

Noun phrase unit number

Just as the function and type of each verb was coded in the verb-complement analysis, the function and type of each noun is coded in the noun phrase analysis. A noun phrase includes a noun plus all the modifiers of that noun. Everything that functions as a simple noun plus modifiers in any independent or dependent constructions is coded.

Entire noun clauses acting as constituents, and verbal phrases which modify nouns are not coded here; they have been done in the V-C analysis. However, the simple noun phrases within these clauses and phrases are coded. Each noun phrase occurs within a numbered verb-complement pattern, and within a numbered sentence. The noun phrases are similarly numbered (consecutively) throughout the transcript and coding sheets.

On the transcript, note the noun phrase (and noun phrase part) numbers in blue pencil over the head noun where possible.

V-C unit	Sentence Number	Noun Phrase Number	
			1 2
001	(001)	001	They were shooting each other.
		002	
			3 4
002	(002)	003	That's a cow.
		004	
			5 6
003	(003)	005	He fixing to get that.
004	(003)	006	

Noun Phrase Part Number

Nouns can be coordinated within a noun phrase. Each noun in a coordinated noun phrase is given a different consecutive part number. A noun phrase which is not coordinated has only one (1) part:

V-C No.	Sentence Number	Noun Phrase Unit	Noun Phrase Part Number	
7	8			
He's a big German Shepherd.				
005	(004)	007	1	(1 part, not coordinated)
		008	1	

Lists of things usually are coordinated objects or complements. They may have many parts.

9	10,1	10,2	10,3		
That's	a boat	*um a car	and a clown	(coordinated complement)	
006	(005)	009		1	
006	(005)	010		1	3 parts coordinated
006	(005)	010		2	
006	(005)	010		3	

11,1 11,2
The boy and that one there running. (coordinated subjects)

007	(006)	011	1	2 parts, coordinated
007	(006)	011	2	

V-C No.	Sentence Number	Noun Phrase Unit	Noun Phrase Part Number

12 13,1 13,2
The cat ran under the table and chair. (coordinated object of preposition)

008	(007)	012	1	
008	(007)	013	1	2 parts, coordinated
008	(007)	013	2	

But if two prepositional phrases are coordinated, they are each a noun phrase unit, and not coordinated parts of the same unit.

14 15 16
The cat ran under the table and behind the sofa.

009	(008)	014	1
009	(008)	015	1
009	(008)	016	1

II. Type of Noun Phrase

Mark a 1 (one) in the columns which describe the types of noun phrases to be coded. (More than one column may be coded, as in phrases which are both simple nonprepositional and coordinated.)

Adverbial NP

A noun phrase which functions as an adverb. These usually indicate time, or amount.

This morning I went to school.
The minute I get back I'll do it.
He works nights and is off Fridays.
Where did you work last year?
I'm four years old.
I'm this many [years old].

Notes:

1. Some words in English have both noun and adverb uses listed in the dictionary. When such words as home and yesterday are used as adverbs, they will not be coded as nouns. This morning, however, has no adverb listing and thus will be coded as an adverbial noun phrase.

2. The adverbial noun phrase, when it modifies an adjective phrase, is the only pre-head-noun-modifying phrase which is separately coded. That is, nouns within possessive N-5 phrases and N-1 slot phrases are not separately coded. As you will see, post-head-noun-modifying prepositional phrases, verbal phrases, and clauses containing noun phrases will all be separately coded.

Simple Non-Prepositional Constituent Noun Phrase

A noun or pronoun with its modifiers which function as a constituent in the V-C unit - - a subject, an object or a noun complement. Entire verbal phrases and clauses which have these functions are not coded here. They have been done in the V-C analysis.

The boy pushed him down.
S obj.

That is a lion.
S compl.

The old German Shepherd dog bit the sly burglar.
S obj.

Simple Prepositional Noun Phrases.

A phrase consisting of a preposition, plus the object of the preposition. We code only "simple" prepositional phrases here. Complex structures, where the object of the preposition is a verbal phrase or noun clause, have been coded in the V-C analysis. However, in these complex phrases acting as objects of prepositions, there will be noun phrases which will be coded.

The girl behind the door stared in amazement at the children.

He went down the street and around the corner to the store.

There's a bump on the log in the hole at the bottom of the sea.

The burglar was frightened by the old but fierce German Shepherd.

We will code a few phrases as if they are multiple-unit conglomerate prepositions. In all cases, these are listed in the dictionary as a type of idiom which stands in place of another simple preposition: In back of = behind, and on top of = on.

Appositional Noun Phrase

A noun is in apposition if it names or represents the same person or thing as another noun in the same clause. An appositive differs from a noun subject complement in that it is not connected by a linking verb or copula to the nouns which it renames, but is just placed nearby. The appositive usually comes immediately after its nouns, but it may stand some distance away. We will include appositional reflexive pronouns in this category also.

My brother, Rick, got lost one night.

Mr. Jones, himself, went to the door.

Miss Price, the teacher, was on the playground.

He's going to Snowy Mountain, the most desolate part of the range.

Coordinate Noun Phrase

Any noun phrases, or noun phrase parts connected by the coordinating conjunctions and, and then, and so, or, but, etc., are scored as coordinates. Coordination must be scored in addition to some other type category. Simple prepositional, simple non-prepositional, appositional and adverbial noun phrase types may all be coordinated. Do not mark this category when modifiers of the noun are coordinated (e.g., the last and best hope . . .) This category must be marked for each part within a coordinate noun phrase.

All the boys and that dog are running.

simple non-prep; coordinate (subject); 1 np with pts.

They ran behind the house and into the garage.

simple prep; coordinate, 2 noun phrases.

They ran behind the trees and bushes.

simple prep; coordinate, 1 noun phrase, 2 parts.

Mr. Burke, my friend and neighbor, helped me move in.

appositional, coordinate, one noun phrase with 2 parts.

III. Pre- and Post-Head Noun Slots Filled

A noun phrase is considered to have a head noun and a number of other slots or positions which can be filled by specified types of fillers. (Usually the head noun slot is filled.) The slots are labelled by their distance from the head noun: N-1 is the first slot before the noun, N-2 the second slot before the noun, N+1 the first slot after the noun. The order in which the slots are numbered is the order in which the modifiers must occur. For example:

the	three	old	ladies	upstairs
(N-5)	(N-4)	(N-2)	N	(N+2)

The modifiers occur in their proper order, but it is not acceptable to change the order:

* the old upstairs three ladies
-5 -2 +2 -4 N

* the three upstairs old ladies
-5 -4 +2 -2 N

Sometimes it looks as if the order can be changed, as when specifiers and ordinals (N-3) come before numerals (N-4):

I wanted the other two books.
The first three horses who finish win money.

But these are examples of phrases filling the numeral slot. "Other" modifies "two", "first" modifies "three", and not the head noun.

More than one slot may be filled in a noun phrase, but all the slots are seldom (if ever) used in a single phrase. A slot may be filled with a single word: old mare; a phrase: very old mare; or multiple words not a phrase: the old, gray mare.

The coding system describes both the modifier slots filled and the nature of the material filling the slots.

A. Description of Slots

Predeterminer (N-6)

These are quantifiers describing number or amounts which precede the article (a, an, the). These single words--all, both, half, only, just, even, etc.--must occur with the article or other determiner as in: all those men, both the boys, just a minute, half the pie.

Note that many of the predeterminers may appear in constructions which have nearly the same meaning but a slightly different structure: 1) All those men, both the boys, 2) All of those men, both of the boys, and 3) All men, both boys.

In the Type 1 examples, one noun phrase is coded, each with three slots filled - - predeterminer (N-6), article (N-5), and head noun. In the Type 2 examples, there are two noun phrases to be coded. All and both are indefinite pronouns modified by the prepositional phrases of the boys and of those men.

In the Type 3 examples, one noun phrase is coded with an indefinite adjective (Slot N-5) and a head noun.

Determiner - Articles (N-5)

The articles are the most frequent class of determiners. They consist of three words: a, an, and the. A and an, the indefinite articles, can be used only with common count nouns (nouns which can be counted). The, the definite article, can be used with all common nouns, both mass and count. Proper nouns (names), however, do not occur with articles.

Determiner - Others (N-5)

Several other types of determiners occur in this slot.

a) Demonstratives: this, that, these, those

that one, this boy, those oranges, one of these girls

These demonstratives are adjectives modifying a head noun. They must be distinguished from demonstrative pronouns which are themselves head nouns, as:

What is this? I want this.

That is a lion. Who is that at the door?

b) Indefinite Adjectives: These include those quantifier terms which are predeterminers when used with an article. When the quantifying term appears alone with the head noun, it is an indefinite adjective: both boys, each one, some girls. But they fill the predeterminer slot when they are before the article. (both the boys). They can also be pronouns.

Some indefinite adjectives include: each, every, either, neither, another, any, some both, several, all, few, enough, more, much, little, less, and no. (Note that they cannot occur after an article, since they must occur in the N-5 slot.)

He's got no shirt.

c) Possessive adjectives: my, our, your, his, her, their. They are used to modify the head noun. My house, our toys, your green shirt, his best suit.

d) Possessive Nouns: These include both possessive common nouns--the girl's toys, the children's room, and possessive proper nouns--Jim's dog, Daddy's hat.

Frequently there are more complicated possessive phrases which occupy this slot:

John's sister's cousin That girl of mine's dog

In these cases the exact internal structure of the phrase will not be coded, though we will be able to note that this type of phrase has occurred by putting a 4 in the slot. That is, in the second example, the two nouns girl and mine, within the possessive phrase, will not be coded at this time, but in the coding of the modifiers of dog a 4 will be placed in the N-5 slot. See Page 16 for more examples of the use of this "4" code.

Numerals - (N-4) one, two, three, etc., as in "the three blind mice", "none of the four sisters", "those two boys".

In phrases like "two of the three boys", two noun phrases will be scored -- one being a cardinal number which will be considered an indefinite pronoun (two), and one being a prepositional noun phrase (of the three boys).

As mentioned before, phrases can occupy this slot:

The first two boys ran the best race.

In this example first modifies two, not boys, and the is required with the ordinal number.

Specifiers, Ordinals and Superlatives (N-3)

This slot is filled by three types of structures.
a) Specifier Adjectives: This is a class of adjectives which occupy a separate slot between numerals and true descriptive adjectives. They include: other, same, different, last, next, chief, whole (emphatic)

two other new books
three chief sound reasons
a whole bunch
one last wild summer

Specifiers may also appear in numeral phrases. In such cases, only the numeral slot is coded as being filled, not the specifier slot.

the other two books
the next two stories
the last two days
the same two shirts

Note that the meaning of the specifier frequently changes when used in such phrases

two different red roses (two unusual red roses)

the different three boys (the not the same three boys)

b) Ordinal Numbers - first, second, third, etc.

c) Superlative Adjectives - best, worst, biggest, smallest, fastest. These may also appear in phrases - "the second biggest one", "the best dressed woman", as well as a single word in a slot - "the three smallest puppies."

Adjective (N-2) - (Attributive)

An adjective in this analysis has the grammatically narrow sense of attributive adjective, which does not fit into the categories of adjective modifiers previously mentioned. All qualities and attributes - good, large, tiny, mean, old, baby (baby brother), tall, green, friendly, etc., are included in the adjective slot, including participles which may be transformed into verbs predicating the noun. Sometimes modifiers of head nouns are listed as having both adjective and noun uses in the dictionary. Examples are baby in the phrase baby orchid, and back in the phrase back yard. We will code these words as adjective modifiers (N-2), not noun modifiers (N-1) in these cases.

Noun Modifier of Head Nouns (N-1)

These are nouns immediately preceding and modifying the head noun, and which function as adjectives:

a ladder thing
a committee meeting
a birthday present

a Teddy bear
a St. Bernard dog

(This combination seems almost to be a compound. See discussion under Head Noun for how we will decide these cases.)

These can combine into very long phrases:

a Christmas tree ornament salesman
the pollution control board selection committee

The above phrases, which are composed of series of adjectival nouns modifying the last noun, fill the N-1 slot. Note that you will not code any of the modifying nouns separately as head nouns, but in cases like "Christmas tree ornament salesman," you will put a 4 in the N-1 slot to indicate the type of phrase.

Head Noun (N)

The head noun is modified by the words which fill the other slots of the noun phrase:

the green shirt
some of the boys
no sand

the girl downstairs
my uncle

The head noun can (and often does) occur without any modifiers: it is, then, the entire noun phrase:

I go.
This is mine.
Who is it?
Everyone came.
Uncle John came. (Type 2 phrase filling the head noun slot)
This is picture number four. (Also Type 2 phrase)

The head noun can be deleted, as in answer to questions:

How old are you? Four. (years)

This is an adverbial noun phrase modifying the understood adjective old. The head noun in the adverbial phrase, "years", has been deleted too, but it is clearly understood.

How many brothers do you have? Two. (brothers)

What color is your dog? Black. (dog is black)

Here black is coded as a post-noun complement (Column 32) with the head noun deleted. Thus Column 25 and 34 will be blank.

These are all adjective modifiers of head nouns which are deleted, due to the question. We code these as noun phrases, but the head noun slot is left blank. Head noun deletions also occur in anaphora, repetitions, etc., and are treated the same way -- as NP's without a head noun.

The decision whether to score a compound head noun or head noun plus a noun or adjective modifier will be made on the basis of the following criteria applied in order.

1. If the "candidate compound" is listed in the dictionary as a compound (a dot between the word), code the compound as a 1 in the head noun slot (e.g., nightime)
2. If the "candidate compound" is not listed as such in the dictionary, but you are pretty sure the child would not use either word in combination with other words in his speech, then also code the word as a compound. (e.g., German shepherd)
3. Code all other combinations as Head Nouns with a Noun or Adjective modifier. (e.g., morning time, cough medicine, nursery school)

A construction which looks similar to an adjective without a head noun is the adjective used as a noun substitute:

The meek shall inherit the earth.
The rich will never understand the poor.
Only a few were left.

These we will treat as noun phrases with the head noun present, since the "adjective" functions as a noun. They will be coded as noun substitutes (M) in the column in which we code the Type of Head Noun. See the section on noun substitutes for more details as to how to distinguish some noun substitutes from true adverbs.

Some constructions which look like ordinary participles and possessives have a very close relationship to their head nouns (acting very much like compounds with them even though they do not appear as such in the dictionary). Because of this, these "descriptive words" are always closest to the head noun, and will be coded as being part of a phrase in the head noun slot. Above each of the words in the noun phrases of the following examples, note the codes that would be placed in the designated columns of the coding sheet.

Descriptive: (1) in 19 (1) in 23 (1) in 24 (3) in 25
The little boy put on the black cloth devil's cape (a type of cape).

Possessive: (1) in 19 (1) in 20 (1) in 23 (1) in 24 (1) in 25
Mortimer put on the devil's black cloth cape (belonging to the devil).

Note that the descriptive word cannot be moved from its position closest to the noun without a change in meaning.

Descriptive: (1) in 19 (1) in 23 (1) in 24 (3) in 25
He hopped aboard the red railroad sleeping car (a type of car).

Participle as an Adjective: (1) in 19 (1) in 23 (1) in 24 (1) in 25
John stepped on the tail of the sleeping Collie dog (the dog who sleeps).

Note that one cannot transform the participle in the third sentence into a verb for the noun --*the railroad car sleeps. Also the position of the words railroad and sleeping may not be changed into the normal sequence for adjective and noun modifiers. As indicated above, these descriptive phrases in the head noun slot will be noted by placing a 3 in Column 25.

Descriptive Prepositional Phrase, Appositional Reflexive or Regular Appositional Noun Phrase (N+1)

The ordinary position of appositional reflexives is directly after the nouns they modify.

The girl herself is going to obtain the reward.

Prepositional phrases coded in this slot are most frequently introduced by the prepositions of and with. They answer the question, Which one?

The girl of many talents

The boy with a broken arm

Phrases of this type may be moved to (and thus may be found by us in) a position after a locative word or phrase if this does not produce an ambiguity as to what words they modify. For example, in the first sentence below, the phrase "with a broken leg" could not be placed after the locative phrase "on a horse" but it could be placed after the locative phrase "on the blanket" in the second sentence below.

The boy with a broken leg on the horse ate the sandwich.

The boy with a broken leg on the blanket ate the sandwich.

In the situation where the descriptive phrase does follow the the locative word or phrase, a 9 will be placed in the slot to indicate this movement. Often the reflexive pronoun will be at the end of the sentence. In these cases, also, put a 9 in Column 26.

They locked it up themselves.

The structure of the prepositional noun phrases occupying this slot will also be coded separately; similarly, the reflexives in this slot will be coded separately as noun phrases in apposition.

Locative Post-noun Modifier (N + 2)

This is a locative adverb following a noun.

that boy there
the girl downstairs
the man outside
this one here

Note: If a noun with a locative adverb following occurs as a direct object, the adverb may modify the verb, not the noun. Use the pronoun test described below to decide what constituent it modifies.

Locative Post-noun Prepositional Phrase (N + 3)

These locative prepositional phrases may follow the noun directly or follow any one or combination of N + 1 and N + 2 modifiers.

That boy outside in the buggy
That man of distinction there on the platform

As with the descriptive prepositional phrases, the internal structure of these phrases will be separately coded also.

It is sometimes difficult to tell whether a prepositional phrase following a direct object modifies the verb or the direct object. A test which seems to work is to see if a pronoun can be substituted for the direct object and keep the meaning of the sentence the same. If it can, the prepositional phrase modifies the verb, not the direct object NP.

He has a big knife in his hand.

This sentence may be changed to He has it in his hand because there is no change in meaning with this pronoun substitution. Thus, the prepositional phrase modifies the verb.

The girl hit the boy with the money.

If the meaning of this sentence was that the boy was holding the money and the hitting was done by means of the girl's hand, not the money, then substituting the pronoun to obtain She hit him with the money does not maintain the correct interpretation. Thus the phrase with the money modifies boy. Also, if the phrase modifies the noun, it should be able to be changed into an adjective -- e.g., "the money-carrying boy".

Note that in many cases such as the one above, the meaning of the sentence by itself is ambiguous. Thus you will have to decide what the child meant by means of the verbal context and the pictures used in the interview before you code these noun phrases.

Descriptive (restrictive) Relative Clauses and Participial & Infinitive Phrases and Interpolated Descriptive Sentences (N + 4)

Though these phrases and clauses will be separately coded both in the V-C unit analysis and in terms of their own constituent noun phrases, we would like to have a way of keeping track of their co-occurrence with other modifiers of noun phrases. It is possible to include these clauses and phrases with all of the other modifiers previously discussed, though some combinations would be very infrequent probably.

I know the boy with the crewcut over there on the log rolling a cigarette.

Their plans to go to school were frustrated.

As with the phrases in the N + 1 slot, the order of these clauses and phrases may be freer than that of the pre-noun modifiers and order deviations will be noted by placing a 9 in the slot.

Some sentences such as the one below, interpolated in the middle of another sentence and describing the subject, will also be noted as a type of modifier filling this slot. In such cases, a 5 will be marked in this column.

The dog --- His name is Snow White --- he went to the park.

Pronominal Appositive (N + 5)

This is a personal pronoun which follows and renames the head noun (usually the subject of the sentence).

Jimmy he gonna play.

The boys there they climbing.

My teacher she was late.

This is not a separate noun phrase; it is coded as a slot filler in the same noun phrase as the head noun which it renames.

These are often found in sentences where a long phrase or clause intervenes between the subject and the verb, so be careful not to skip them.

The big lady in the car that has a dented fender, she was nasty.

Reflexive pronouns following nouns will not be coded in this Column. Rather they will be treated as separate apposition noun phrases.

Post-noun: all, both, else (N + 6)

The "all" and "both" adjectives may come either before the noun (in the predeterminer or determiner slot), or after the noun in this N + 6 slot:

We all can come.
What are you all doing?
My parents will both be home.

Note that these can come after a verb, but else can only come after the noun:

What else do you do?
Nothing else.

When only is used to mean alone or exclusively, it can also fill this slot. However, be careful not to code it as a noun modifier when it means just, since it then modifies an up-coming verb.

But you only are the one I love. (only = alone, modifies you)
But you only saw it; I heard it too. (only = just, modifies saw)

Adjective or Adverb Complement of Subject or Object

This can occur only with V-C patterns B, F, I, and H in the V-C analysis. It is not actually a "slot," but we need some way to describe these modifiers.

He looks foolish.
She seems nice. } B

He is black and white.
They are very friendly. } I

They thought him foolish.
They called him dumb. } F

They are over there.
There they are. } H

With inversions of the subject and adverbial complement in H-pattern presentatives, put a 1 in Column 48 and also a 9 in Column 32, since the complement is out of place.

Adjectives such as asleep, awake, afraid, alive, etc. must occur in this position (cannot be preposed) and should be coded 9 if they occur elsewhere (see below).

The slots just described may be filled in a number of different ways. The description of the codes for the type of filler for the slots now follows.

B. Type of Fillers in Slots

blank = slot is not filled

1 = slot is filled with one word (see exception noted under 9 below)

	the	three	green	trees	here
column:	19	21	23	25	27
code:	1	1	1	1	1

2-5 = slot is filled with a phrase

2 = Multi-word titles, names, and numbers-

Miss King, the I Love Lucy show, twenty-five hundred children, Picture Number 4

3 = Simple Modification phrases

(a) intensifier adverbs with specifiers, determiners, or adjectives

He's a very big boy. He's a big old dog. (Here old intensifies big.)

(b) repetition of adjectives to accomplish intensification

It was dark dark dark.

(c) specifiers modifying numerals or other specifiers

The best three excuses . . .
The first two children in line . . .

(d) adjectives modifying adjectives

The pure white dress . . . The medium blue shirt . . .

(e) descriptive adjectives in the head noun slot

dining car
devil's cape

4 = Phrases with more flexible and varied modification possible

(a) Possessive layering. This type of phrase will be given a separate code since it can involve numerous layers and types of slot modification.

[a friend of mine]'s house
[His younger sister's new husband's oldest brother]'s second wife
[That boy over there]'s bicycle

(b) N-1 Slot Phrases. The phrases in this slot may also be quite varied and long, involving many layers of modification.

the[[[[[Water Pollution] Control] Board] Selection] Committee]
the [[Berkeley [City Council]] [[Ecology Study] Group]]

Note that some of these phrases are successive pile-ups (as in the first example) of noun modifiers and some seem to break up into subphrases in other ways. Also note that words other than noun modifiers can be a part of such phrases such as the adjective in the following phrase:

[[Environmental Pollution] Control] Board

(c) Postnoun Locative or Descriptive Prepositional Phrases. Prepositional phrases may contain words, phrases, and clauses of all different types. Thus we will include them in this "complicated phrase" category.

(d) Phrases or words modified by clauses, verbal phrases, or prepositional phrases.

5 = Verbal Phrase or Clause in the Slot

These would include the relative clauses, infinitive and participial phrases acting as adjectives, and descriptive interpolated sentences.

6 = Filled with phrase, part of which is understood due to answer to question, repetition or anaphora.

EXP: How old are you?
CHILD: I am four. (I am four [years old])

Four is a part of the adverbial noun phrase four years, so a 6 is put in Column 32 when I is coded. Note that when four is coded, either in the above sentence or when the child answers the question by saying "Four," a 1 is put in the numeral slot (N-4) and the head noun slot is left blank, since you are coding the adverbial noun phrase four years, not the adjective complement four years old.

7 = Filled with Coordinated Single-word Modifiers

Coordination can be signalled with a comma, or with a conjunction.

In the case of the comma, you, as coder, will need to decide whether or not the comma should be in the transcript. (The transcribers did not make these decisions reliably.) You will need to decide this by your interpretation of the meaning of the sentence. If you feel that you could insert and between the two modifiers, they may be considered coordinated.

Some phrases such as:

Teeny weeny little one

are a problem, since they might be considered to contain several coordinated adjective modifiers or one modified phrase within the adjective slot. One possible way to make the decision will be to successively drop each modifier out and see if the meaning of the remaining modifiers stays the same. In the example above, our best guess was that teeny weeny was a phrase modifying one and that it was coordinated with the single word adjective modifier, little. Thus an "8" was put in Column 23.

The old but fierce dog
(7 in Col. 23)

The little, old lady (But not big old dog, where old is an intensifier.)
(7 in Col. 23)

I have a fat, old, black and brown dog.
(7 in Col. 23)

How many brothers do you have?
Three and four and five and six
(7 in Col. 21)

8 = Filled with Coordinated Phrases Modifying the Head Noun or Coordinated Single Word(s) and Phrase(s)

a very old and very stubborn relative
(8 in Col. 23)

the great big, very noisy dog
(8 in Col. 23)

That was the best, most expensive meal I ever ate.
(8 in Col. 22)

The old and extremely fat man came in.
(8 in Col. 23)

9 = Filled with word (or phrase) having the same function as words in this slot, but occuring in a different position, including single modifiers of coordinated nouns

Code this in the slot (column) where the filler should have occurred - rather than where it did appear in the sentence.

That there boy is late.
(9 in Col. 27)

I saw the farmer's cows and pigs.
(9 in Col. 20 for pigs)

I want a whole (n)other one.
(9 in Col. 22)

There is one else thing.
(9 in Col. 31)

IV. Type of Head Noun

blank = head noun is deleted
(See example under head noun, Col. 25.)

A = common count

These are nouns which can be counted - boy, shoe, slide, shirt.

B = common mass (not the same as plural nouns)

These are nouns which cannot be counted and are not used with plurals, or with the indefinite articles a, an: milk, gravel, water, sand, butter. You can use the definite article as in:

Give me the milk.

or you can use some, as in:

Give me some milk.

Occasionally, these can be used and should be coded as count nouns, particularly when referring to different types or "units" of the mass noun:

The waters of the basin drain into this river.
We offer three gravels - coarse, medium, and fine.
The sands of time
I ordered three milks.

When children use indefinite articles with nouns like ground or water, which seem to be used in a mass sense, code as B.

C = proper noun

Any name or title which would be spelled with a capital letter: Irving, Popeye, San Francisco, Bay Area Rapid Transit.

D = personal pronoun (including the more indefinite personal pronouns)

There are: I, me, you, he, him, she, her, they, them, it, we, us

Be careful not to code situation it, impersonal it, or expletive it with this code

Code the more indefinite personal pronouns as D's also.

They have a lot of different things on T.V.
You've got to stretch, if you're ever going to grow.
What do you use that for. (you means one)

E = possessive pronoun

These are: mine, yours, his, hers, theirs, its, ours.

F = reflexive pronoun

These are: myself, yourself, himself (hisself), herself, themselves, (theyself), itself, ourselves, yourselves

G = definite relative pronoun

A pronoun that introduces a relative clause and which functions as a subject or object or object of a preposition within the clause. These are: who, whom, which, that, the nonstandard what, and their compounds with -ever.

That's the man who fell down.

This is the house that Jack built.

H = demonstrative pronoun

A pronoun used to point to a preceding or following noun as the one intended, or to refer to a previous idea, or something in the general context. These are: this, that, these, those, and such.

This is the best book I ever read.
His health was such that he couldn't get insurance.
These are good.
That's the spirit.
I want these and those.

So can also be a demonstrative: I told you so.
I think so.

I = indefinite pronoun

These include a large number of pronouns. Their common feature is that they all refer to or imply a number or quantity. Many of these pronouns serve double functions as indefinite adjectives and predeterminers when they modify nouns. But when they themselves act as a pronoun, taking the place of a noun, they are indefinite pronouns:

I don't have any milk - indef. adj.

I don't have any more - "any" is indef. adj.
"more" is indef. pron.

I don't have any - indef. pron.

I don't have it anymore - adv.

These include:

all
another
any
anybody
anyone
anything
both
each
either
enough
everybody
everyone
everything
few
less
little
many
more
much
neither
nobody
none
nothing
one
plenty
several
some
somebody
someone
something
and cardinal numbers:
two, three, etc.

Some examples:

That's all.
I do nothing.
Nobody came.
Give me one.
I want more.
Neither were there at first, but both came later.

J = interrogative pronoun or indefinite relative pronoun

A word that introduces a question or embedded question and also functions as a constituent in the sentence.

Who is there?
Whose is this?
From whom did you get this?
What did you say?
Which would you like?
He knew what he was doing.

K = reciprocal pronoun

There are only two in English: each other and one another.

L = impersonal or situation it or existence there

When any of these words which we have counted as the true subjects of their sentences occurs, they will be classified classified in this category. Note that the expletive it

and there, since they are not counted as being the true subjects of their sentences but only fillers of space, are not coded as noun phrases at all.

Once there was a princess.	(existence there)
It's a hot day.	(impersonal it)
It was Sam that I saw.	(situation it)
It's nice that you came.	(expletive it - do not code)
There are six tomatoes on the vine.	(expletive there - do not code)
There is the ball.	(locative there in a presentative construction - do not code as a noun)

M = noun substitutes

Occasionally adjectives or adverbs are used as nouns; in these situations, they will be also coded as nouns and classified in this category. (These are adjectives and adverbs which do not have a noun listing in the dictionary.)

The boy walked up to here.

How far is it from here?

The meek shall inherit the earth.

The rich will never understand the poor.

Often it is a little difficult to tell whether the adverbs here and there are acting as adverbs or as noun substitutes acting as objects of a preposition:

The boy walked up here.

He was snooping around there.

The best way to decide whether or not these words are nouns or adverbs is to see whether to that place or that place is the best substitute for there, for example. If to that place seems to be the best substitute, the word in question is probably an adverb, not a noun substitute. If that place is the better phrase, there is probably a noun substitute.

N = "pants"-type plural nouns

These nouns are characterized by consisting of a pair of things which are not separable, such as pants, glasses, binoculars. Note that though the form is plural, they really refer to a singular quantity. To pluralize them, you must say two pairs of pants, etc.

P = state nouns

These nouns are never pluralized. Most of the time, however, they do have a count noun usage also.

Go to sleep (state noun), but He has had many good sleeps (count noun)
in that bed.

The dark came (state noun).

Don't get me in trouble (state noun), but He has many troubles. (count noun)

Q = all other noun types not classified above

A number of nouns have occurred so far that do not seem to belong anyplace. In addition, there seem to be a number of types of them. But since we cannot be very clear at this time about giving them a name, we will use this residual category for the time being. Many of the types we have encountered so far have been in temporal or locative adverbial expressions. See the examples below just to see why this category seems to be needed.

1. Locational, temporal, and some quantity nouns (lot, bunch, mess):

I saw the play on television. (This seems to be a sort of instrumental locative expression. Also, television in this usage would never be pluralized or modified by some, so it seems not to be either the count or mass noun usage.)

A question has come up as to whether sound words like "woof woof" should be counted as nouns. What we will do is to count them if they occur in sentences describing the sounds an animal makes (or object makes); but we will not count them as nouns when the object or animal is emitting them in the sentence. Thus the sound words in the first two sentences of the examples below will be coded as count nouns, whereas they will not in the second two sentences.

1) The train's choo-choo's could be heard for miles.
2) The train went "Choo-choo."
3) The dog's woof's woke up the neighbors.
4) The dog went "Woof woof."

For a little while, I thought I was going to choke to death.

I got hurt on the arm.

The boy was over there in the back.

2. Generic nouns: The automobile has changed our way of life.

3. Semi-unique nouns which are almost proper nouns: disease names (mumps), some games (house, marbles, baseball--but not trade names, which are proper nouns), place names (the sky, the beach, the doctor, the city).

4. Unique-type nouns: the best, the first, the next.

V. Function of Simple Non-Prepositional Constituent Noun Phrase in V-C Unit

1 = subject (including nominal elements in Q complements)

She hit him.
Who is this? (inverts to: This is who.)
That is all.

2 = direct object

She saw the man.
The doctor gave me some medicine.
I want more milk.

3 = indirect object

The doctor gave me medicine.

This is possible in patterns E and L of V-C analysis.

4 = subject or object complement

He became a teacher.
He is a fool.
They elected him president.

This is possible in patterns C, F, G, L, and S of V-C analysis.

6 = cannot determine function

The noun phrase occurs in an R pattern V-C unit.

8 = direct object, truncated passive construction with agent deleted

The baby was named Eric.
The ball was hit.
My tooth was pulled.

See the V-C analysis manual for the difference
a) between normal and truncated passives
b) between truncated passives and participles acting as adjective subject complements (with have, get).

9 = noun phrase of address (vocative)

A noun or name used to direct a statement to someone:

What you doing, Baby Bear?
Man, you better not do it.
Step to the rear, lady.
Children, don't play on that slide.

VI. Function of Adverbial Noun Phrase in Sentence

blank = does not apply

4 = modifies adjective

four years old

6 = cannot determine function

7 = modifies verb

This morning I went to school.

8 = modifies sentence

9 = modifies another adverb or element acting as an adverb, such as a prepositional phrase.

VII. Function of Simple Prepositional Phrase in Sentence

1 = subject modification or modification of subject appositive

The girl at the window saw the man.

How much is that doggie in the window?

2 = modifies direct object or its appositive

I saw the man across the street.

I met the lady from down the hall.

He loves the city of San Francisco.

I'll tell you something about this.

3 = modifies indirect object or its appositive

Give the boy under the table a spanking.

I got the children in the class a new book.

4 = modifies subject or object complement

In patterns C, F, G, H, and S of V-C analysis.

He is a man of great stature. She is bigger than me.
She became a witch with a black cape.

5 = modifies object of preposition or its appositive

The mouse went into the hole in the wall.

There is a frog on the log in the hole at the bottom of the lake.

6 = cannot determine function

Prepositional phrase occurs in an R pattern and its function cannot be determined.

7 = modifies the verb, or whole sentence, or its appositive
[Includes prepositional phrase in V-C pattern P]

The ball rolled under the fence.

She hit the boy on the head.

8 = indirect object

He gave the ball to me.

9 = acts as subject or object complement

In patterns B, F, G, H, or I in the V-C analysis.

He looked like a fool.
It tastes like candy.

The boy was in a hurry.
The woman was in a rage.
The student was over his head.

The ball was on the table.

Note that when two prepositional phrases or a prepositional phrase and an adverb are in the complement, it is hard to tell which is the complement.

The boy is way up in the tree.

In such cases you may ask whether the adverbs tell you the degree to which or the distance the boy is in the tree. If they do, as in this case, the adverbs modify the phrase which is the adverbial complement of the subject.

A = modifies an adjective which is not the subject complement

B = modifies a sentence (usually with S and I patterns and impersonal and situation it)

C = modifies a noun of address (vocative)

VIII. Function of Constituent which Appositional Phrase Stands in Apposition to

1 = subject

John, my neighbor, came in.

The boy, a redhead, was lost.

2 = direct object

Charles intentionally smashed the vase, my favorite wedding present.

3 = indirect object

I gave the boy, a real go-getter, a tip.

4 = subject or object complement

He smelled a strange odor, sweet perfume.

They elected him Marshall, an important office.

5 = object of preposition

They went to the Tulling Place, an old abandoned house.

6 = cannot determine function

Noun phrase stands in apposition to noun in an R pattern whose function cannot be determined.

IX. Function of V-C unit containing this Noun Phrase

(This code will correspond exactly to the code in Column 14 or the V-C coding sheets for that V-C unit number you have noted in this noun phrase coding in Columns 1-3.)

Codes

1 = verbal element in dependent adverbial clause
2 = verbal element in relative clause
3 = parenthetical verb
4 = main verb of sentence
5 = verbal element acting as subject constituent
6 = verbal element acting as complement constituent or DO
7 = verbal element in comparative or correlative clause
8 = verbal element in phrase acting as object of a preposition (gerundive or infinitive)
9 = verbal element in adjective phrase
0 = verbal element in adverbial phrase
A = verb in apposition
R = V-C unit with R pattern

X. Environment of V-C unit containing this noun phrase

(This code also will correspond exactly to the code found in Column 21 of the V-C coding sheet for the relevant V-C unit)

Codes

A = exact or nearly exact repetition of earlier comment
B = 1st clause, after question, request or command
C = 1st clause, after content statement by interviewer
D = 1st clause, after non-directive prompt by interviewer
E = 1st clause, initiated by child
F = non-initial, main clause after and
G = non-initial, dependent clause (or phrase) after and
H = non-initial, main clause after but
I = non-initial, dependent clause (or phr.) after but
J = non-initial, main clause after or
K = non-initial, dependent clause (or phr.) after or
L = non-initial, 1st clause in new sentence, after another sentence
M = non-initial, main clause after dependent or constituent V-C unit
N = non-initial, dependent clause (or phr.) after dependent or constituent V-C unit, and modifying something
O = non-initial, dependent clause (or phr.) after dependent or constituent or parenthetical V-C unit, and acting as a constituent or parenthetical unit

P = non-initial, dependent clause (or phr.) after main verb unit and modifying something
Q = non-initial, dependent clause (or phr.) or parenthetical phrase after main verb unit and acting as a constituent
R = non-initial, child answers own question
S = non-initial, dependent clause or constituent introducing another main verb unit connected to the previous main verb by and, but, or or

XI. Additional Descriptive Codes

1 = noun phrase in stereotyped phrase or clause. (The whole V-C unit is stereotyped.)

That's all.
I don't know.
Nothing. (when in answer to a question)

2 = list noun (coded with a series of thre or more nouns)

I see a banjo, a monkey, a cow, and a vase.

3 = idiomatic noun phrase. The noun and its modifier are idioms.

good morning

XIII. Tags showing NP is out of its usual place in the sentence.

Inversion with Interrogative Noun Phrases

1 = inversion of verb and noun in tag of tag question. Mark only on noun in tag.

2 = inversion of auxiliary verb and subject in yes/no question. Mark only on the subject.

3 = change in order of any nouns in wh-question. Mark all.

4 = change in order of subject and any other nouns in indirect or embedded questions.

I don't know what he'll ask.

Presentative - Inversion of Subject and Locative Here or There

Note that in the standard version (There is . . .), the adverb complement there or here will also be entered in the slots as

a 9 in Column 32, doubly marking this order reversal. The nonstandard There go a . . . will not have this double marking.

Passive - Change in Order of Subject (Agent) and Object

Includes order deviation in the truncated passive. This is marked on both the object and subject (agent) if both are present.

Expletive - Nouns in the subject placed in a later position in the sentence and an expletive "holds" the position of the subject. Mark on all nouns in the subject.

Other Miscellaneous Inversions of Constituent NP's

1 = Stylistic order inversions:

These yellow things he gonna take. (DO inversion - Mark on both nouns.)

2 = Inversion with relative clause introducer:

. . . a thing that you go down.

Part of Interview

0 = warm up
1 = picture #1
2 = picture #2
3 = picture #3
4 = picture #4
5 = picture #5
6 = picture #6

Time of Interview

1 = pretest
2 = posttest

SES/Age

1 = Richmond
2 = Berkeley
3 = Moraga

Treatment

1 = sentence
2 = vocabulary
3 = control

Card Number (starting with 001)

Subject ID Number